TAMPEREEN TEKNILLINEN YLIOPISTO

TEEMU SALMENAHO

AUTOMAATTISEN PYSÄKÖINTILAITOKSEN RUNGON MITOITUS

Diplomityö

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Tarkastaja ja aihe hyväksytty
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TIIVISTELMÄ

TAMPEREEN TEKNILLINEN YLIOPISTO
Rakennustekniikan koulutusohjelma
SALMENAHO, TEEMU: Automaattisen pysäköintilaitoksen rungon mitoitus
Diplomityö, 25 sivua, 85 liitesivua
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Tämä diplomityö käsittelee suomessa kehitetyn patentoidun automaattisen pysäköintilaitoksen runkorakenteiden rakenteellista määrittelyä ja mitoitusta. Pysäköintilaitoksen runkorakenteet koostuvat pääosin vakioiduista modulaarisista elementeistä ja lisäksi tapauskohtaisista rakenneosista, riippuen siitä onko kyseessä valmiiseen rakennukseen integroitu järjestelmä vai kokonaan uudisrakennus.
Rakennusmateriaaleina kantavissa runkorakenteissa käytetään pääosin teräs-/teräsbetoni- komposiittirakenteita.
Tässä työssä määritetään automaattisen pysäköintilaitoksen rungon kantavat rakenneosat ja niiden toiminta sekä kestävyys.
Rakenneosien määrittelyn jälkeen työssä suoritetaan elementtien välisen liitoksen mitoitus.

Tässä diplomityössä käsitellään pääasiassa erästä Oy ACD Ltd. :n hanketta, jossa automaattinen pysäköintilaitos on suunnitteilla vanhaan teräsbetonirakenteiseen siiloon.
Kyseinen pysäköintilaitos on pääosin maan alla, ainoastaan terminaali- ja huoltorakennukset sijaitsevat maan päällä.
Kohteen erikoislaatuisuuden vuoksi kaikki konstruktiot eivät ole suoraan sovellettavissa muihin POKOSTORE- System järjestelmiin.

ABSTRACT

TAMPERE UNIVERSITY OF TECHNOLOGY
Master's Degree Programme in Construction Technology
SALMENAHO, TEEMU: Calculation and Design of the Frame of the Automated Car Parking Facility
Master of Science Thesis, 25 pages, 85 Appendix pages
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Major: Construction technology
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Keywords: Automated Car Parking, POKOSTORE- System, stability, steel structure, concrete structure, composite structure, module, connection details, loadings

This thesis is considering about definition, calculation and dimensioning of automated car parking systems frame structures. This automated car parking system is innovated in Finland and it is patented.
Systems frame structures are constructed mostly of modular elements, but also of the structural parts and assemblies which are specific for the current project. Depending on for example the facts, that is the parking facility in
completely new building or is it integrated in already built building.

The materials of the load bearing frame structures are mostly steel structures and composite structures of steel and concrete.
In this thesis I will define the load bearing structures and study the function and the endurance of the structures of the frame.

After the definition of the frame, I will do the calculations for endurance of the detail between the elements.

This thesis is considering mainly one of the specific project of the company Oy ACD Ltd. In this project there is designed to build POKOSTORE- System automated car parking facility in the already built steel and concrete composite structured silo.
The whole facility is mainly located under the ground. Only the terminal buildings and service building will be located on the ground.

Because of the special characteristics of this exact project, some of the structures and details are not directly applicable for the other POKOSTORE- System facilities.

ALKUSANAT

Tämä diplomityö on tehty Oy ACD Ltd. :llä vuonna 2015.

Työni valvojana on ollut TTY:n rakennustekniikan osastolta TkT Markku Heinisuo. Esitän hänelle parhaimmat kiitokseni saamistani neuvoista ja ohjauksesta.

Lisäksi kiitän kaikkia yhteistyössä mukana olleita sidosryhmiä.

Tämä diplomityö on luottamuksellinen toistaiseksi, koska työn kohteena oleva patentoitu POKOSTORE- System automaattinen pysäköintilaitos on vielä tuotekehitysvaiheessa. Tätä diplomityötä ei saa julkaista eikä kopioida ilman patentin haltijan suostumusta.

Tampereella 4. maaliskuuta 2015

Teemu Salmenaho

SISÄLLYS

TERMIT JA NIIDEN MÄÄRITELMÄT

APL	Automaattinen pysäköintilaitos.
PHL	Pysäköinninhallintalogiikka.
Moduuli	Pysäköintilaitoksen runkorakenne-elementtiyksikkö.
Stabiliteetti	Rungon tai sen osan vakavuus kuormituksia ja rasituksia vastaan.
POKOSTORE- System	Automaattinen pysäköintilaitos. (Tavaramerkki)
AP	Autopaikka

1. JOHDANTO

2000- luvun yhteiskunnan autoistuminen lisääntyy koko ajan. Henkilöautojen keskihinnat ovat pudonneet ja entistä useammalla on mahdollisuus hankkia ja omistaa henkilöauto. Kehittyneissä maissa keskituloisella perheellä voi olla jopa 2 – 4 autoa. Suuremmissa kaupungeissa ja jopa jo keskisuurissakin pysäköintitilojen ja alueiden puute on koko ajan suurempi ongelma.
Automaattinen ja tiivis pysäköintiratkaisu on paitsi vastaus mm. suurkaupunkien ja taajamien jatkuvasti kasvavaan pysäköintitilan tarpeeseen, niin myös vaivaton ja ympäristöystävällinen tapa pysäköidä ajoneuvo.
POKOSTORE- System automaattinen pysäköintijärjestelmä on erittäin tehokas energiankulutukseltaan ja tilankäytöltään.
Järjestelmä paikoittaa auton automaattisesti moottorin ollessa sammutettuna, joten parkkipaikan katseluun ei tarvitse käyttää aikaa ja polttoainetta. Lisäksi pakokaasupäästöt vähenevät.

Tässä diplomityössä on tarkoitus alustaa POKOSTORE- System Katajanokan rungon rakennesuunnittelua ja määritellä alustavasti kohteen paloluokitus.
Suomen rakentamismääräykset eivät vielä varsinaisesti tunne automaattista pysäköintilaitosta, joten esimerkiksi paloluokkaa ja rakenteiden palonkestoaikaa ei voida katsoa taulukoista.

Runkosuunnittelussa ja detaljisuunnittelussa käytän 3D- mallinnustekniikkaan perustuvia ohjelmia, muun muassa Tekla Structures sekä Solid Works.
FEM- laskennassa käytän pääasiassa Staad ja Solid Works Simulation ohjelmia.

Tämän diplomityön yhteydessä ei ole mahdollisuutta ratkaista kaikkia rakenteellisia yksityiskohtia. Tässä työssä käsitellään koko rungon staattisen ja dynaamisen toiminnan sekä stabiliteetin pääperiaatteet ja mitoitetaan rakenneosat alustavasti niiden perusteella.
Työssä käsitellään myös kohteen liitosratkaisuja konseptitasolla ja tullaan mitoittamaan alustavasti osa liitoksista. Ja pyritään selvittämään rungon toiminnan edellyttämät vaatimukset liitoksilta.

2. TAUSTATIETOA

Automaattinen pysäköiminen on alkanut herättämään mielenkiintoa jo muun muassa Oulun, Tampereen, Turun ja Helsingin sekä muun pääkaupunkiseudun kuntalaisten keskuudessa. Ja Oy ACD Ltd. on kehittänyt ja markkinoinut tuotettaan jo noin 8 vuotta, näiden kokemusten perusteella Oy ACD Ltd. :lle on kehittynyt vahva osaaminen automaattisten pysäköintilaitosten toiminnasta ja markkinoista.

Tutkimusten perusteella automaattinen pysäköinti tulee yleistymään seuraavan kymmenen vuoden aikana radikaalisti.
Autot säilytetään jatkossa kompaktisti ja helposti. Ja näin kiinteistöissä jää neliöitä muun muassa asumiseen ja liiketiloille.
Kun pysäköinti järjestetään tällä tavalla, rakennuksiin jää 1-3 kerrosta lisää tilaa riippuen kiinteistön suuruudesta.

Oy ACD Ltd. :lle on kehittynyt vahva osaaminen APL liiketoimintaan lukuisissa kehitys projekteissa viimeisen 10 vuoden aikana.

POKOSTORE- System APL voitti parhaan innovaation palkinnon Moskovan messuilla jo vuonna 2009.

POKOSTORE- System APL on tehokkain APL maailmassa, tilankäytöltään ja energiatehokkuudeltaan sekä toimintanopeudeltaan.

Myös rakenneteknisesti POKOSTORE- System APL on paras, koska se on nopea asentaa ja siten myös kustannustehokas.

Lähdeluettelon kaikkia kirjoja on käytetty kokonaisuudessaan, mitoitettavan rakenteen mitoituksen ja käytettävien ohjelmien toiminnan verifiointiin.
Lisäksi lähteinä on käytetty Oy ACD Ltd :n omia tutkimusmateriaaleja, jotka ovat tässä vaiheessa salaisia.

3. LÄHTÖKOHDAT

3.1. Mittoja

Työn alussa tutkin millä pohjaratkaisulla saan maksimoitua pysäköintipaikkojen määrän kohteessa. Rajoitteita asetti se, että kohde toteutetaan olemassa olevaan teräsbetonikomposiittirakenteiseen siiloon. Tämän siilon vapaa sisähalkaisija on 28 metriä ja korkeus 21 metriä. Korkeudesta menetetään lisäksi kannen kantavien palkkien ja kansirakenteen viemä korkeus. Kansirakenne ja kannen hyötykuormat kannatetaan teräsbetonikomposiittirakenteisilla primääripalkeilla sekä teräsbetonisella keskipilarilla ja ulkokuoren teräsbetonikomposiittiseinällä.
Primääripalkkien jännemitta on 14m x 2 kpl, ts. palkit mitoitetaan kaksiaukkoisina ja näin saadaan redusoitua taipumaa. Keskipilarin nurjahduspituus on 0,7 – 1,0 kertaa jänne, joka tässä tapauksessa on 21 metriä.
Ulkokuorena oleva kantava teräsbetonikomposiittiseinä toimii pääasiassa maanpainetta vastaan. Toki maanpainetta lisää primääripalkkien tukireaktiot kannen kuormista ja rakenteiden omista painoista.
Tämä ulkokuori on halkaisijaltaan 28 metriä ja korkeudeltaan 21 metriä oleva sylinteri, jonka sisäpinnassa on 20 mm paksu teräslevy ja sen ulkopuolella noin 300 mm teräsbetonia, joka on ankkuroitu ympäröivään maaperään.
Mainittujen reunaehtojen puitteissa päätin, että kohde voidaan toteuttaa kaksi kehäisenä ratkaisuna.
Kerroskorkeus saatiin tilastollisesti 2,5 metriksi, joka johti siihen, että kohteessa on kahdeksan kerrosta.

Yhden autopaikan ulkomitoiksi sain 5400 mm x 2300mm, tutkittuani autojen tilastollisia äärimittoja. Ulkomitoilla tarkoitetaan tässä sitä, millaisen vapaan tilan henkilöauto vaatii. Edellisen lisäksi otin vielä noin 10 senttimetriä lisätilaa sekä pituuteen että leveyteen.
Aluksi kokeilin eri vaihtoehtoja ja sain ulkokehän maksimi paikkamääräksi 21 autopaikkaa.
Sisäkehän paikkajaoksi kokeilin ensin kuusikulmaista ratkaisua ja sitten seuraavaksi kahdeksankulmaista. Kuusikulmainen ratkaisu oli mahdollinen, mutta kahdeksankulmaisessa ratkaisussa tila loppui kesken. Lopuksi kokeilin seitsemänkulmaista keskikehämallia, joka osoittautui parhaaksi.

Hyvä ominaisuus siinä oli myös se, että 21 on seitsemällä jaollinen, joten keskikehän ja ulkokehän kohdistaminen ratkesi samalla.
Sain siis paikkojen kerroslukumääräksi yhteensä 21 + 7 =28 paikkaa.

Aikaisempien tutkimusten, selvitysten ja laskelmien perusteella tiesimme, että kyseisen kokoinen POKOSTORE System ratkaisu kannattaa toteuttaa kahdella hissillä, jotka on sijoitettu ulkokehälle, joka on tässä projektissa kiinteä kehä.
Ja pyörivälle sisäkehälle sijoitetaan siirtolaitesektori, toisin sanoen yhteensä 8 siirtolaitetta.
Edellisillä ratkaisuilla saadaan minimoitua liikkuvien osien määrää sekä liikuteltavien massojen määrää ja sitä kautta myös energian sekä rakenteiden kulutusta.

Alustavasti varasin pystyrakenteille ja tekniikalle mielestäni riittävästi tilaa pohjaratkaisussa. POKOSTORE System autovaraston pyöreä pohjaratkaisu antoi jo lähtökohtaisesti sopivasti mahdollisuuksia sijoittaa talotekniikka.
Muun muassa sammutuslaitteiston kanavat ja autopaikkojen jätevesiviemärikanavat sekä sähkölinjat voidaan sijoittaa pilareiden sivuihin jäävään tilaan.
Alustavasti pilareille jää tilaa noin 500 mm kertaa 500 mm kokoinen ala.
Vaakarakenteille varasin lähtökohtaisesti noin 0,5 metriä tilaa autopaikan korkeudesta, joka johtaa noin 2 metrin vapaaseen korkeuteen autopaikalla.
Tähän 0,5 metriin pitää saada mahtumaan kantavien palkkien ja muiden rakenteiden lisäksi myös vaakasiirtolaitemekanismit ja siihen liittyvät osat. Sekä suoja-alusta autopaikalle, joka estää mm. veden ja lumen tippumisen alempien autojen päälle.
Kantaville palkeille jäisi alustavasti korkeutta noin 200 – 250 mm.

3.2. Kuormia

Katajanokan APL :n peruskuormituksena on autopaikan rakenteiden omapaino ja hyötykuormat. Kuormien osittaisen dynaamisuuden vuoksi varmuuskertoimet on syytä pitää 1.25 – 1.5 välissä ja mahdollisesti ottaa lisää varmuutta jollain lisäkertoimilla.

Normaalien henkilöautojen ja pakettiautojen painot vaihtelevat 1500 kg ja 3000 kg välillä, joten jos käytetään auton painona kuormissa 3500 kg, niin siinä on huomioitu jo mukaan auton hyötykuorma eli irtain tavara autossa.

Vertailun vuoksi otin Euronormista (EC1) autopaikan kuormituksen, joka on 2,5 kN/m2, eli jos otetaan autopaikan pinta-ala 2,3 m x 5,4 m = 12,42 m2.
Niin saadaan autopaikan hyötykuorman resultantiksi 12,42 m2 x 2,5 kN/m2 = 31,05 kN.
Jos taas lasketaan auton maksimipainon perusteella, saadaan hyötykuorman resultantiksi 3500 kg * 9,81 m/s2 = 34,34 kN.

Lisäksi mukaan lasketaan autopaikan rakenteiden ja mekatroniikan sekä muiden laitteiden painoksi 1300 kg / AP. Josta saadaan 1300 kg x 9,81 m/s2 = 12,75 kN

Kuormien dynaamisesta luonteesta johtuen pyöristän kuorman tasan 50 kN :ksi.

Tässä työssä tulen siis käyttämään, edellä johdettua hyötykuorman suuruutta 50 kN / AP.

Lisäksi POKOSTORE- System runkoon aiheutuu rasituksia järjestelmän liikkeistä johtuvista kiihtyvyyksistä. Suurimmat kiihtyvyydet aiheutuvat liikkeiden jarrutuksista.
Kiihtyvyyksien huippuarvoja tullaan tosin rajoittamaan teknisillä ratkaisuilla. Ts. PHL (pysäköinninhallinta logiikka) ja automaation sekä mekatroniikan ja mekaniikan yksityiskohdat.
Tässä diplomityössä ei käsitellä mekaanisia eikä automaatioon tai robotiikkaan liittyviä ratkaisuita tarkemmin.

Tässä työssä käsittelen rungon perusmitoituksen, kriittisimmässä kuormitustilanteessa. Ja tutkin rakenneosien ja kriittisimpien liitosten rasitustiloja.
Ja dokumentoin tähän diplomityöhön rungon mitoittavan kuormitustapauksen mitoituksen ja tulokset sekä teräselementtien välisen liitoksen mitoituksen ja tulokset.

Tässä mitoituksessa käytän autopaikalle staattista 50 kN kuormaa, joka on jaettu 4 pisteeseen jokaiseen autopaikkaan, joka on kuormitettuna kussakin kuormitustapauksessa.

Toisin sanoen jokaisessa kuormitetussa autopaikassa on 4 kappaletta, x, y, z – koordinaatistossa, –z n suuntaan olevaa itseisarvoltaan 12,5 kN pistekuormaa jokaisessa AP ssa. Ja lisäksi pyörivällä keskikehällä kiihdytyksistä ja jarrutuksista aiheutuvat, tangentin suuntaiset voimat 4 kpl / AP arvoltaan 4 x 3,125 kN. Voiman arvo tulee mekaaniikkasuunnittelusta, johon ei tässä diplomityössä mennä tarkemmin.

3.3. Laskentamenetelmät

Rungon mitoituksen teen Staad 3D- FEM ohjelmalla.
Mitoituksessa dynaamiset kuormat redusoin staattisiksi kuormitustapauksiksi.
Mitoitus tehdään Euronormin EC3 mukaisesti.
Detaljien mitoitukset teen pääosin käsin laskemalla. Tulen mallintamaan ja analysoimaan elementtien välisen liitoksen Solid Works 3D- FEM laskennalla.

Alustavien käsin laskennalla tehtyjen arvioiden avulla teen riittävän määrän eri kuormitustapauksia, jotta saan selvitettyä kriittisimmän kuormitustapauksen.

Laskennassa käytän apuna ATK menetelmiä toistuvien rutiinien toistamiseen.
Tähän diplomityöhön tulen dokumentoimaan vain kriittisimmän eli mitoittavan tapauksen laskennan.

Teen rungosta 3D sauvarakenne mallin, jossa on kuvattu ulkoisten kuormien ja reunaehtojen perusteella, todellisen rakenteen rasitustilaa riittävän tarkasti. Jotta saan riittävän luotettavasti tehtyä rakenneosien ja liitosten mitoituksen.

Elementtien välisen liitoksen mitoitan Solid Works 3D solid FEM- laskennalla ja teen tarkistuksia käsin laskien.

Tässä diplomityössä keskitytään pääosin tietokoneavusteiseen mitoitukseen, FEM-laskennan, lujuusopin tai statiikan kaavoja ei tulla tässä työssä kertaamaan.

Tulokset ja niiden johtopäätökset ilmoitan luvussa 5. ja liitteissä. Tulokset ovat pääsiassa graafisesti esitettynä tai taulukkomuodossa.

3.4. Paloasiat

Automaattisen pysäköintilaitoksen (APL) paloasiat eivät ole yksiselitteisiä. Suomen rakentamismääräykset eivät tunne ennakkotapauksia asiassa, joten palonkestoaikoja ja paloluokkia ei saa luettua suoraan taulukoista.
Katajanokan APL :n paloasioihin otti alustavasti kantaa Helsingin paloviranomaiset ja rakennusvalvonta, mutta lopullista kantaa asioihin ei ole vielä muodostunut.

Edellisestä johtuen tässä diplomityössä on tarkoituksenmukaisempaa vain luetella eri kriteereitä, jotka vaikuttavat paloasioihin.
Kriteereitä on listattuna oheisissa taulukoissa.

	Versio 1. APL tulkitaan yksikerroksiseksi
Paloluokka	P1
Palovaarallisuusluokka	1 syttymisriski pieni, koska autojen moottorit sammutettuina
Suojaustaso	3 kohteessa käytetään automaattista, kohdekohtaista sammutusjärjestelmää
Palokuormaryhmä	yli 1200 MJ/m2 automaattisella sammutuslaitteistolla tarvittaessa alempi
Kantavien rakenteiden luokka	R180, mikäli luokka P1 R90, mikäli luokka P1 ja palokuormaryhmä 600-1200 MJ/m2 R60, mikäli luokka P1 ja palokuormaryhmä alle 600 MJ/m2
Poistumistiet	keskipilarin ympärillä kierreportaat huoltoa varten ja palokunnan sammutustehtäviä varten poistumistietä ei tarvita, koska tilassa ei pääsääntöisesti oleskele ihmisiä portaiden mitoituksessa ei tarvitse noudattaa poistumistiemääräyksiä
Savunpoistojärjestelyt	automaattinen savunpoistojärjestelmä
Palotekniset järjestelmät	hapenpoistava järjestelmä mahdollinen, koska tilassa ei ole ihmisiä

	Versio 2. APL tulkitaan kahdeksankerroksiseksi
Paloluokka	P1
Palovaarallisuusluokka	1 syttymisriski pieni, koska autojen moottorit sammutettuina
Suojaustaso	3 kohteessa käytetään automaattista, kohdekohtaista sammutusjärjestelmää
Palokuormaryhmä	alle 600 MJ/m2 perustuu arvioon yksittäisen auton palokuormasta, jonka osuus on 244 MJ/m2
Kantavien rakenteiden luokka	R120, mikäli maanpäällinen kerros lasketaan kerrokseksi R60, mikäli maanpäällistä kerrosta ei lasketa kerrokseksi
Poistumistiet	keskipilarin ympärillä kierreportaat huoltoa varten ja palokunnan sammutustehtäviä varten poistumistietä ei tarvita, koska tilassa ei pääsääntöisesti oleskele ihmisiä portaiden mitoituksessa ei tarvitse noudattaa poistumistiemääräyksiä
Savunpoistojärjestelyt	automaattinen savunpoistojärjestelmä
Palotekniset järjestelmät	hapenpoistava järjestelmä mahdollinen, koska tilassa ei ole ihmisiä

Rungon mitoituksessa voitaisiin lähteä siitä, että palonkestoaika kantaville rakenteille on 60 minuuttia. Mutta todellisuudessa kantavien rakenteiden palonkestoaika on alempi, käytettäessä kohdekohtaista hapenpoistavaa automaattista sammutuslaitteistoa.

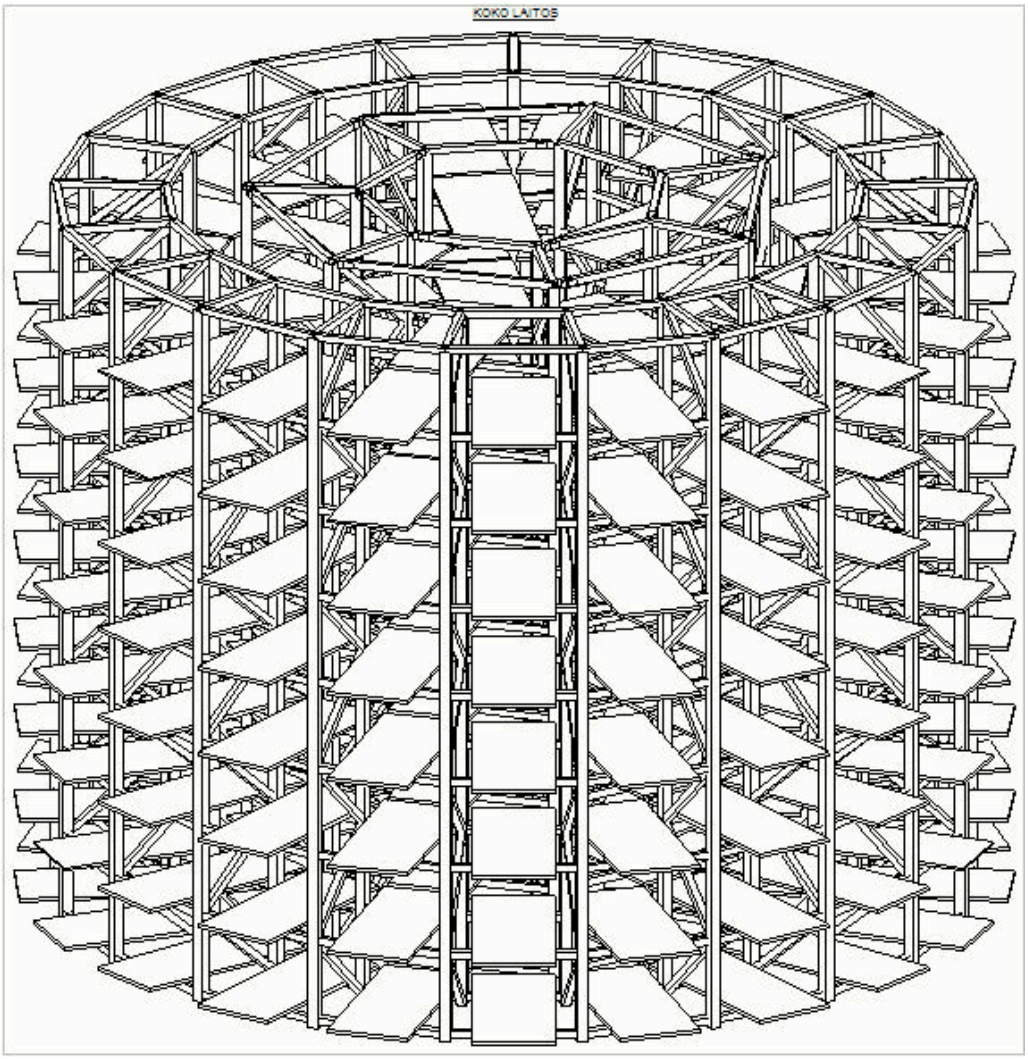
Palonkestoaikaan vaikuttaa oleellisesti valittava sammutusmenetelmä ja se seikka, että APL :ssa ei ole ihmisiä.

Tässä diplomityössä rungon mitoituksessa lähdetään siitä, että rungon palonkestoaika on 0 minuuttia. Toisin sanoen palo tullaan sammuttamaan kohdekohtaisella laitteistolla ja rungon mitoitus voidaan tehdä normaalilämpötilassa.

4. MITOITUS

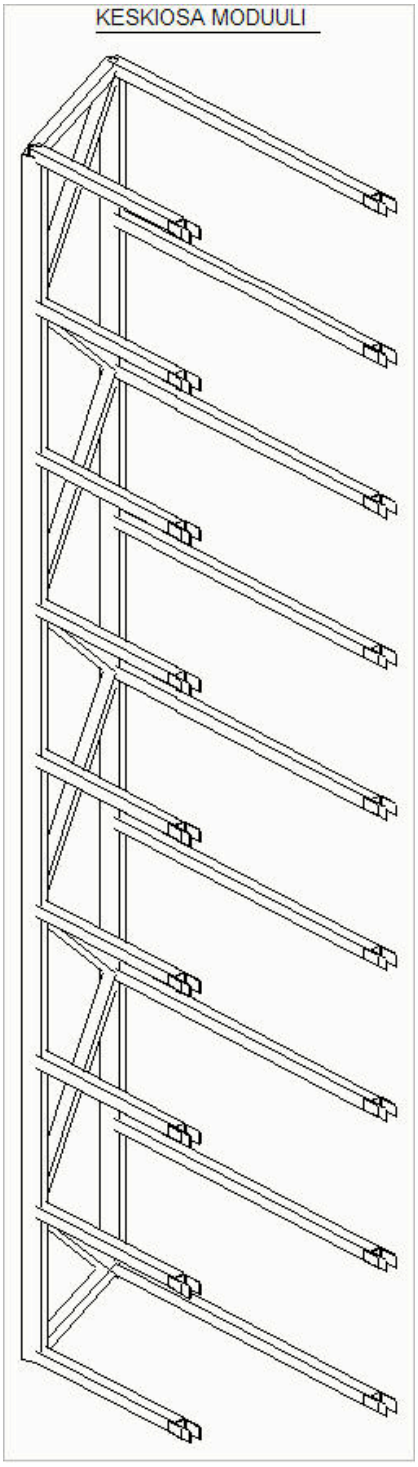
4.1. Runko

POKOSTORE – System Katajanokka muodostuu, kuten edellä on mainittu kaksikehäisestä järjestelmän versiosta (kuva 1). Ulommainen kehä on kiinteä ja sisempi kehä pyörii 720 astetta keskiönsä ympäri. Sisemmällä kehällä on yksi siirtolaitesektori ja ulommalla kehällä on kaksi kehähissiä, joihin auto ajetaan suoraan terminaalin kautta.

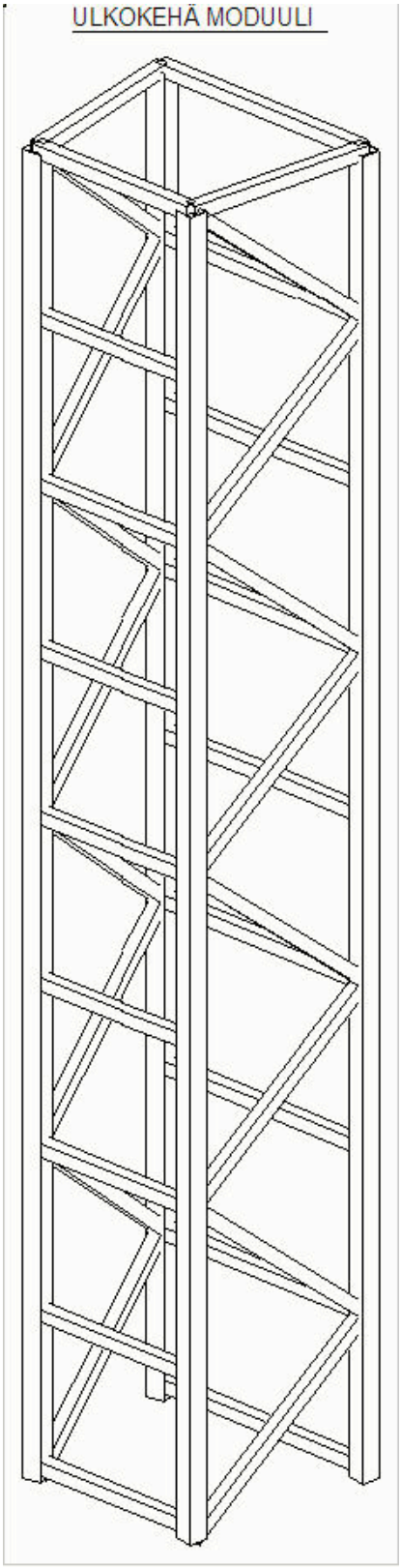


Kuva 1.

Teräsrunko koostuu kahden tyyppisistä avaruusristikkorakenteisista perusmoduuleista, sisäkehämoduuli (kuva 2) ja ulkokehämoduuli (kuva 3).



Kuva 2.



Kuva 3.

Valmistustekniikan ja asentamisen kannalta sekä siten myös kokonaisuudessaan taloudellisemmaksi tulee, kun moduuleissa käytetään noin kahdesta kolmeen erilaista profiilia.
Alustavien 2D- laskelmien perusteella hyvä kokoluokka avaruusristikon paarteiksi on CFRHS 300*300*10 ja diagonaaleiksi CFRHS 200*200*8.
Materiaalina käytän S355J2G3 teräslaatua.

Näillä profiileilla liikkuvan sisäkehän rungon omaksi kokonaispainoksi tulee noin 70 tonnia, mikä on vielä siedettävä energiatalouden kannalta.
Liikkuvan sisäkehän hyötykuorman resultoivan kokonaispainon ollessa noin 280 tonnia.

Keskiönsä suhteen pyörivän sisäkehän maksimi kokonaispaino on siis 350 000 kg.

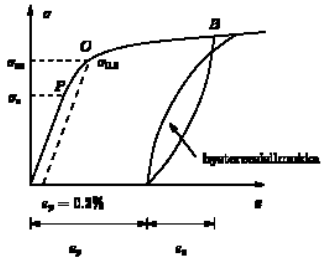
Suurimman moduulin eli sisäkehän moduulin kokonaispaino on noin 10 tonnia, mikä on vielä siedettävä kuljetuksen ja asennuksen kannalta.
Moduulin äärimitat ovat normaalin maantiekuljetuksen rajoissa, siten kuljetuskustannus on optimaalinen.

4.2. Liitokset

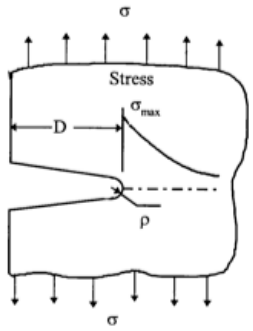
Rungon asennus tehdään pulttiliitoksin tehtaalla valmistettujen elementtien välillä. Kuormien dynaamisen luonteen vuoksi moduulien pulttiliitoksissa käytetään tavallista useampaa, mutta sitä vastoin halkaisijaltaan pienempää pulttia paremman väsymiskestävyyden saavuttamiseksi.

Väsymiskestävyys otetaan huomioon myös liitosten geometrisessa muotoilussa. Teräviä muotoja vältetään jännityshuippujen tasaamiseksi.

Plastisuusteorian mukainen hystereesisilmukkailmiö (kuva 4) ja murtumismekaniikan särönmuodostumiset (kuva 5) eliminoidaan, liitosten muotoilulla ja tekemällä mitoitus kimmoteorian mukaisella jännitysalueella.



Kuva 4.



Kuva 5.

Liitosten levyosien materiaalina käytän S355J2G3 rakenneterästä ja pulttien sekä mutterien materiaali on kuumasinkitty 8.8.

Elementtien välisen liitoksen mitoitus tehdään rungon osien kapasiteettien mukaan.
Eli liitoksen tulee kestää saman verran kuin itse rakenneosienkin.

4.3. Mitoituksen kulku

4.3.1 Rungon mitoitus

Ensin mallinnan Tekla Structures ohjelmalla rungon ja sitten siirrän sen Staad ohjelmaan. Jonne muodostuu rungosta 3D sauvarakenne FEM- elementtimalli.

Laskennan reunaehdot määritellään jo Tekla Structures ohjelmassa.

RHS200*200*8 elementit ovat laskennassa nurjahduskertoimella 1.0*solmuväli.
Ja RHS300*300*10 elementit kertoimella 0.5*koko pilarin pituus, eli niiden nurjahduspituus on siis 10 metriä.
Näin siksi, koska keskikehä laakeroidaan eli tuetaan ylä- ja alapäästään sekä lisäksi jännevälin keskeltä.

Pilareiden alapään tuet ovat jäykkiä (x-, y-, z-, rx-, ry-, rz- suunnissa) ja pilareiden yläpään tuet ovat jäykkiä (x-, y-, z- suunnissa).
Keskituki on käytännössä kehän säteen suunnassa ja siten estää pilareiden nurjahtamisen. Mutta lisään laskentamalliin varmuutta jättämällä keskituen pois.

Kuormina on omapaino ja AP- kuorma ts. 4 kpl z- suunnassa vaikuttavaa -12,5 kN pistekuormaa per AP. Ja lisäksi pyörivällä keskikehällä on samoissa pisteissä 4 kpl tangentin suunnassa vaikuttavia 3,125 kN vaakavoimia. Vaakavoimat kuvaavat pyörimisliikkeen jarrutuksen aiheuttamaa rasitusta rakenteeseen.

Teen kaksi erillistä laskentamallia, toisen ulkokehästä ja toisen keskikehästä.

Alustavien laskelmien perusteella on selvää, että mitoittavin kuormitustapaus on tapaus, jossa kaikki AP :t ovat täynnä. Joten dokumentoin sen kuormitustapauksen tässä diplomityössä.

Kun geometria ja kuormat sekä reunaehdot on saatu määritettyä Tekla Structures ohjelmassa. Tehdään siirto Staad ohjelmaan. Tarkistetaan laskentamalli ja kun se on virheetön, niin tehdään Staad mitoitus.

Kun Staad ohjelma on tehnyt laskennan, niin Staad ohjelmassa siirrytään seuraavaksi jälkikäsittely tilaan ja katsotaan rakenteen rakenneosien maksimi käyttöasteet ja maksimi siirtymät. ks. liitteet.

4.3.2. Elementtien välisen liitoksen mitoitus

Elementtien välisen liitoksen olen hahmotellut lähteiden ja kokemuksen perusteella. Liitostyyppi on esitetty liitteissä.

Mallinnan liitoksen Solid Works ohjelmalla, jossa myös teen 3D- FEM mitoituksen.

Kun geometria on mallinnettu. Muodostetaan static solid tyyppinen laskentamalli. Materiaaliksi rakenneosille ja varusteluosille laitan S355J2G3 teräslaadun.
FEM verkon muodostan tedra- elementeillä. Ohjelma tihentää automaattisesti verkotusta Hot- spot alueilla / terävissä singulariteetti kohdissa.

3D- FEM malliin en mallinna pultteja. Vaan laskennan reunaehdoissa määritän tuen pultinreikien sisälle.
Liitteissä on esitetty liitoslaskenta ja tulokset.

Teen liitoksen mitoituksen myös käsin laskien. ks. liitteet.

5. TULOKSET

5.1. Rungon rakenneosat

RHS 300*300*10 on sopiva valinta pilareiksi ja RHS 200*200*8 on sopiva valinta palkeiksi ja diagonaaleiksi. Itse lujuustarkastelussa on varmuutta, mutta mitoittavaksi tekijäksi tulee kyseisessä runkorakenteessa siirtymät.

APL :n toiminnan kannalta siirtymät pitää rajoittaa tarvittaviin toleransseihin, jotta mekanismit toimivat.
Tässä diplomityössä ei mennä syvemmin tähän aihealueeseen.

Siirtymien lisäksi värähtely on tärkeä saada kuriin. Ja se onnistuu tekemällä rungosta riittävän massiivinen ominaistaajuudeltaan, silti asennuksen ja kuljetuksen kustannusten kannalta järkevissä rajoissa. ks. 4.1.

Valitut rakenneteräsprofiilit toteuttavat edelliset vaatimukset hyvin.

Staad FEM- laskennan tulokset on dokumentoitu liitteissä.

5.2. Elementtien välinen liitos

Tein liitosmitoituksen käsin laskien. Ja lisäksi tutkin liitosta Solid Works Simulation 3D- FEM ohjelmalla. ks. liitteet
Elementtien välinen liitos kestää valitulla detaljilla 75 % rakenneputken vetolujuudesta. Tätä voidaan pitää tässä tapauksessa riittävänä.

3D- FEM laskennan tulokset vahvistavat käsin laskennan.

Eli mitoittavaksi tekijäksi tulee liitoslevyjen vetokestävyys.

Solid Works Simulation FEM- laskennan ja liitoksen käsin laskennan tulokset on dokumentoitu liitteissä.

6. YHTEENVETO

Tässä diplomityössä saavutettiin tarkoituksen mukainen tavoite. Tehtiin alustava rungon mitoitus ja liitosten tarkastelu. Ja dokumentoitiin ne tarkasti ja tarkoituksen mukaisesti.

On syytä todeta, että tässä diplomityössä ei ole ollut tarkoituksen mukaista puuttua liian syvällisesti patentoidun POKOSTORE- System järjestelmän mitoitukseen, johtuen patentin suojausasioista.

Asioita on tarkasteltu konseptitasolla ja perusperiaatteita on tutkittu riittävällä tarkkuudella.

7. LÄHTEET

Packer J.A., Wardenier J., Kurobane Y., Dutta D., Yeomans N. 1992. CIDECT, Construction with hollow steel sections. Design guide for rectangular hollow section (RHS) joints under predominantly static loading. 1. painos. Köln, Verlag TÜV Rheinland GmbH.

Wardenier J., Kurobane Y., Packer J.A., Dutta D., Yeomans N. 1991. CIDECT, Construction with hollow steel sections. Design guide for circular hollow section (CHS) joints under predominantly static loading. 1. painos. Köln, Verlag TÜV Rheinland GmbH.

Rondal J., Würker K.–G., Dutta D., Wardenier J., Yeomans N. 1996. CIDECT, Construction with hollow steel sections. 2. Structural stability of hollow sections. 2. painos. Cologne, Verlag TÜV Rheinland GmbH.

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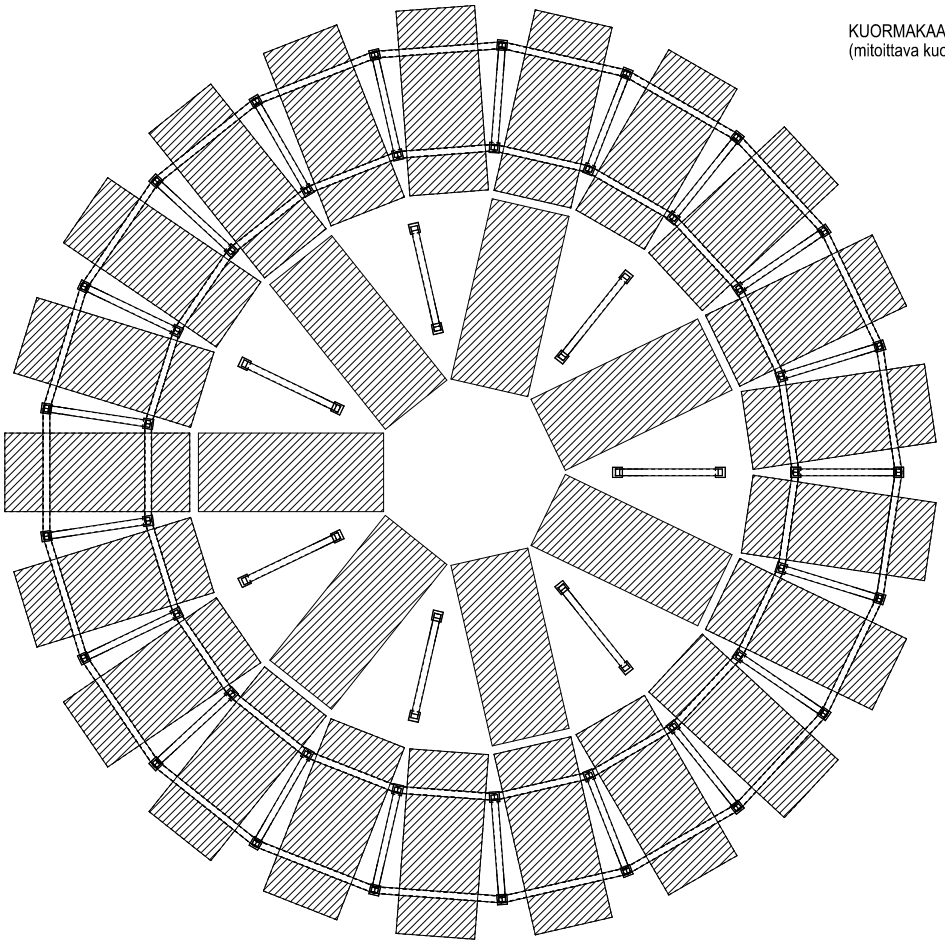
Dutta D., Wardenier J., Yeomans N., Sakae K., Bucak Ö., Packer J.A. 1998. CIDECT, Construction with hollow steel sections. 7. Design guide for fabrication, assembly and erection of hollow section structures. 1. painos. Köln, TÜV-Verlag GmbH.

Zhao X.-L., Herion S., Packer J.A., Puthli R.S., Sedlacek G., Wardenier J., Weynand K., van Wingerde A.M., Yeomans N.F. 2001. CIDECT, Construction with hollow steel sections. 8. Design guide for circular and rectangular hollow section welded joints under fatigue loading. 1. painos. Köln, TÜV-Verlag GmbH.

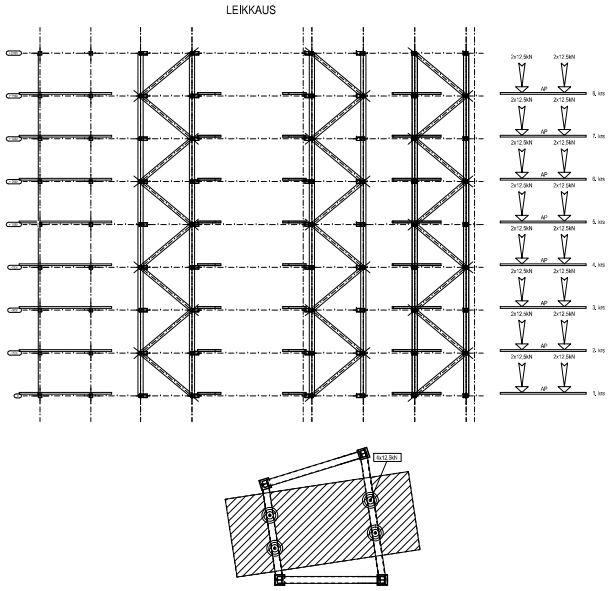
8. LIITTEET

85 sivua:

KUORMAKAAVIO 1 (kaikki paikat kuormitettu)
(mitoittava kuormitustapaus)



LEIKKAUS

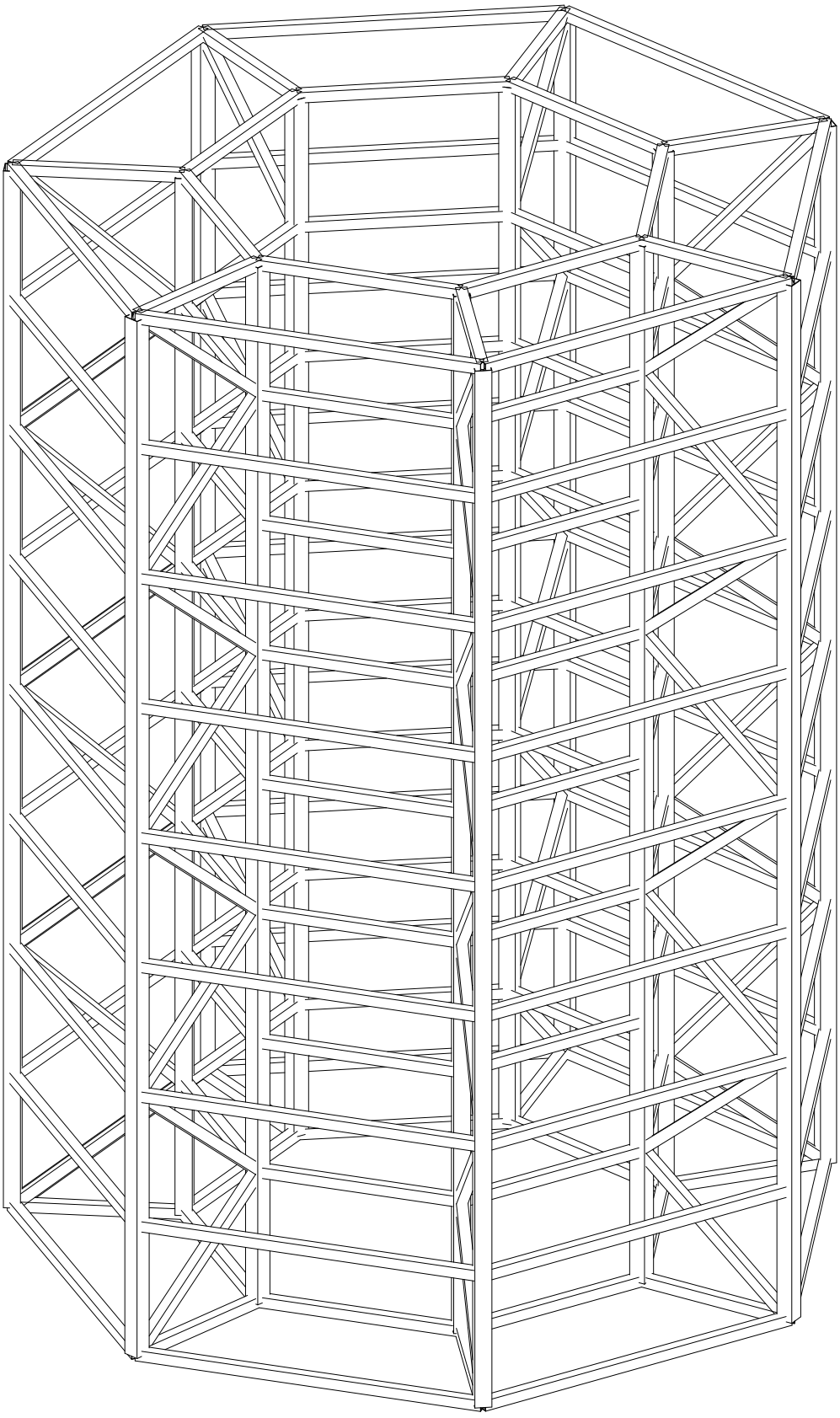


= Kuormitettu AP(autopaikka) Ulkokehä: 4x12,5kN=50kN
= Kuormitettu AP(autopaikka) Keskikehä: 4x12,5kN=50kN
ja 4x3,125kN=12,5kN vaakavoima / kehän pyörimiskiihtyvyys

VASTAAVA RAKENNESUUNNITTELIJA (NIMI, TUTKINTO, ALLEKIRJOITUS)
Teemu Salmenaho, RI / Tekn.YO

PVM 5.1.2015

Keskikehä



Job Information

	Engineer	Checked	Approved
Name:	TSa		
Date:	09.02.2015		

Structure Type	SPACE FRAME

Number of Nodes	126	Highest Node	126
Number of Elements	308	Highest Beam	406

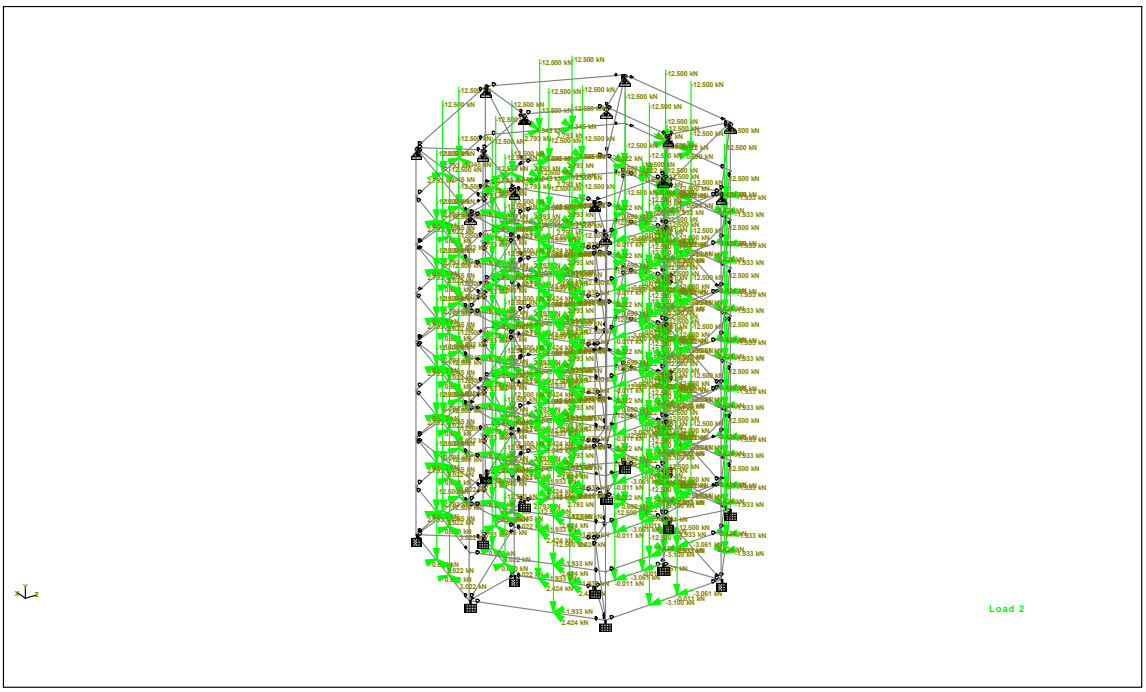
Number of Basic Load Cases	4
Number of Combination Load Cases	0

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	SELFWEIGHT, ID: 563198
Primary	2	APKESKIKEHA, ID: 561584
Primary	103	ULS1, ID: 1
Primary	104	SLS2, ID: 2



Whole Structure Loads 3.41284kN:1m 2 APKESKIKEHA, ID: 561584

Utilization Ratio

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
3	CFRHS200X	CFRHS200X	0.012	1.000	0.012	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
4	CFRHS200X	CFRHS200X	0.008	1.000	0.008	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
5	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
6	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
7	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
8	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
9	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
10	CFRHS200X	CFRHS200X	0.013	1.000	0.013	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
13	CFRHS200X	CFRHS200X	0.011	1.000	0.011	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
14	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
15	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
16	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
17	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
18	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
19	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
20	CFRHS200X	CFRHS200X	0.014	1.000	0.014	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
23	CFRHS200X	CFRHS200X	0.012	1.000	0.012	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
24	CFRHS200X	CFRHS200X	0.008	1.000	0.008	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
25	CFRHS200X	CFRHS200X	0.008	1.000	0.008	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
26	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
27	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
28	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
29	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
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36	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
37	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
38	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
39	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
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43	CFRHS200X	CFRHS200X	0.015	1.000	0.015	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
44	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
45	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
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47	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
48	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
49	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
50	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
53	CFRHS200X	CFRHS200X	0.014	1.000	0.014	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
54	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
55	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
56	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
57	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
58	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
59	CFRHS200X	CFRHS200X	0.008	1.000	0.008	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
60	CFRHS200X	CFRHS200X	0.011	1.000	0.011	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
63	CFRHS200X	CFRHS200X	0.013	1.000	0.013	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
64	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
65	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
66	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
67	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
68	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
69	CFRHS200X	CFRHS200X	0.007	1.000	0.007	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
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78	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
79	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
80	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
81	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
82	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
83	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
84	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
85	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
86	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
87	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
88	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
89	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
90	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
91	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
92	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
93	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
94	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
95	CFRHS200X	CFRHS200X	0.161	1.000	0.161	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
96	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-5.5.2 LTB	103	59.242	3.57E+3	3.57E+3	5.78E+3
97	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
98	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
99	CFRHS200X	CFRHS200X	0.126	1.000	0.126	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
100	CFRHS200X	CFRHS200X	0.126	1.000	0.126	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
101	CFRHS200X	CFRHS200X	0.126	1.000	0.126	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
102	CFRHS200X	CFRHS200X	0.126	1.000	0.126	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
103	CFRHS200X	CFRHS200X	0.126	1.000	0.126	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
104	CFRHS200X	CFRHS200X	0.126	1.000	0.126	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
105	CFRHS200X	CFRHS200X	0.126	1.000	0.126	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
106	CFRHS200X	CFRHS200X	0.265	1.000	0.265	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
107	CFRHS200X	CFRHS200X	0.264	1.000	0.264	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
108	CFRHS200X	CFRHS200X	0.264	1.000	0.264	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
109	CFRHS200X	CFRHS200X	0.165	1.000	0.165	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
110	CFRHS200X	CFRHS200X	0.268	1.000	0.268	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
111	CFRHS200X	CFRHS200X	0.267	1.000	0.267	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
112	CFRHS200X	CFRHS200X	0.266	1.000	0.266	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
113	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
114	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
115	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
116	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
117	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
118	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
119	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
120	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
121	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
122	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
123	CFRHS200X	CFRHS200X	0.161	1.000	0.161	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
124	CFRHS200X	CFRHS200X	0.263	1.000	0.263	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
125	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
126	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
127	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
128	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
129	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
130	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
131	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
132	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
133	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
134	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
135	CFRHS200X	CFRHS200X	0.263	1.000	0.263	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
136	CFRHS200X	CFRHS200X	0.263	1.000	0.263	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
137	CFRHS200X	CFRHS200X	0.161	1.000	0.161	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
138	CFRHS200X	CFRHS200X	0.264	1.000	0.264	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
139	CFRHS200X	CFRHS200X	0.263	1.000	0.263	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
140	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
141	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
142	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
143	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
144	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
145	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
146	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
147	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
148	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
149	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
150	CFRHS200X	CFRHS200X	0.263	1.000	0.263	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
151	CFRHS200X	CFRHS200X	0.162	1.000	0.162	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
152	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
153	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
154	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
155	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
156	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
157	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
158	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
159	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
160	CFRHS200X	CFRHS200X	0.120	1.000	0.120	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
161	CFRHS200X	CFRHS200X	0.121	1.000	0.121	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
162	CFRHS200X	CFRHS200X	0.264	1.000	0.264	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
163	CFRHS200X	CFRHS200X	0.265	1.000	0.265	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
164	CFRHS200X	CFRHS200X	0.265	1.000	0.265	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
165	CFRHS200X	CFRHS200X	0.163	1.000	0.163	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
166	CFRHS200X	CFRHS200X	0.263	1.000	0.263	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
167	CFRHS200X	CFRHS200X	0.263	1.000	0.263	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
168	CFRHS200X	CFRHS200X	0.264	1.000	0.264	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
169	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
170	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
171	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
172	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
173	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
174	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
175	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
176	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
177	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
178	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
179	CFRHS200X	CFRHS200X	0.162	1.000	0.162	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
180	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
181	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
182	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
183	CFRHS200X	CFRHS200X	0.127	1.000	0.127	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
184	CFRHS200X	CFRHS200X	0.127	1.000	0.127	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
185	CFRHS200X	CFRHS200X	0.127	1.000	0.127	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
186	CFRHS200X	CFRHS200X	0.127	1.000	0.127	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
187	CFRHS200X	CFRHS200X	0.127	1.000	0.127	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
188	CFRHS200X	CFRHS200X	0.127	1.000	0.127	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
189	CFRHS200X	CFRHS200X	0.127	1.000	0.127	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
190	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
191	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
192	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
193	CFRHS200X	CFRHS200X	0.162	1.000	0.162	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
194	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
195	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
196	CFRHS200X	CFRHS200X	0.262	1.000	0.262	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
197	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
198	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
199	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
200	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
201	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
202	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
203	CFRHS200X	CFRHS200X	0.119	1.000	0.119	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
204	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
205	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
206	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
207	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
208	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
209	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
210	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
212	CFRHS300X	CFRHS300X	0.113	1.000	0.113	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
215	CFRHS300X	CFRHS300X	0.147	1.000	0.147	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
217	CFRHS300X	CFRHS300X	0.157	1.000	0.157	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
218	CFRHS300X	CFRHS300X	0.154	1.000	0.154	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
219	CFRHS300X	CFRHS300X	0.324	1.000	0.324	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
221	CFRHS300X	CFRHS300X	0.148	1.000	0.148	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
223	CFRHS300X	CFRHS300X	0.109	1.000	0.109	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
224	CFRHS300X	CFRHS300X	0.139	1.000	0.139	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
226	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
229	CFRHS300X	CFRHS300X	0.142	1.000	0.142	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
231	CFRHS300X	CFRHS300X	0.155	1.000	0.155	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
232	CFRHS300X	CFRHS300X	0.151	1.000	0.151	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
233	CFRHS300X	CFRHS300X	0.322	1.000	0.322	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
235	CFRHS300X	CFRHS300X	0.154	1.000	0.154	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
237	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
238	CFRHS300X	CFRHS300X	0.140	1.000	0.140	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
240	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
243	CFRHS300X	CFRHS300X	0.147	1.000	0.147	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
245	CFRHS300X	CFRHS300X	0.158	1.000	0.158	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
246	CFRHS300X	CFRHS300X	0.154	1.000	0.154	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
247	CFRHS300X	CFRHS300X	0.332	1.000	0.332	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
249	CFRHS300X	CFRHS300X	0.151	1.000	0.151	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
251	CFRHS300X	CFRHS300X	0.112	1.000	0.112	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
252	CFRHS300X	CFRHS300X	0.139	1.000	0.139	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
254	CFRHS300X	CFRHS300X	0.119	1.000	0.119	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
257	CFRHS300X	CFRHS300X	0.142	1.000	0.142	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
259	CFRHS300X	CFRHS300X	0.156	1.000	0.156	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
260	CFRHS300X	CFRHS300X	0.152	1.000	0.152	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
261	CFRHS300X	CFRHS300X	0.328	1.000	0.328	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
263	CFRHS300X	CFRHS300X	0.155	1.000	0.155	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
265	CFRHS300X	CFRHS300X	0.118	1.000	0.118	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
266	CFRHS300X	CFRHS300X	0.140	1.000	0.140	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
267	CFRHS300X	CFRHS300X	0.332	1.000	0.332	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
280	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
281	CFRHS300X	CFRHS300X	0.333	1.000	0.333	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
294	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
295	CFRHS300X	CFRHS300X	0.327	1.000	0.327	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
308	CFRHS300X	CFRHS300X	0.113	1.000	0.113	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
309	CFRHS300X	CFRHS300X	0.330	1.000	0.330	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
322	CFRHS300X	CFRHS300X	0.118	1.000	0.118	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
323	CFRHS300X	CFRHS300X	0.331	1.000	0.331	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
336	CFRHS300X	CFRHS300X	0.118	1.000	0.118	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
337	CFRHS300X	CFRHS300X	0.154	1.000	0.154	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
338	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
339	CFRHS300X	CFRHS300X	0.154	1.000	0.154	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
340	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
341	CFRHS300X	CFRHS300X	0.154	1.000	0.154	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
342	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
343	CFRHS300X	CFRHS300X	0.151	1.000	0.151	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
344	CFRHS300X	CFRHS300X	0.110	1.000	0.110	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
345	CFRHS300X	CFRHS300X	0.154	1.000	0.154	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
346	CFRHS300X	CFRHS300X	0.117	1.000	0.117	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
347	CFRHS300X	CFRHS300X	0.155	1.000	0.155	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
348	CFRHS300X	CFRHS300X	0.152	1.000	0.152	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
349	CFRHS300X	CFRHS300X	0.156	1.000	0.156	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
350	CFRHS300X	CFRHS300X	0.153	1.000	0.153	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
351	CFRHS300X	CFRHS300X	0.156	1.000	0.156	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
352	CFRHS300X	CFRHS300X	0.153	1.000	0.153	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
353	CFRHS300X	CFRHS300X	0.156	1.000	0.156	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
354	CFRHS300X	CFRHS300X	0.153	1.000	0.153	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
355	CFRHS300X	CFRHS300X	0.156	1.000	0.156	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
356	CFRHS300X	CFRHS300X	0.152	1.000	0.152	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
357	CFRHS300X	CFRHS300X	0.146	1.000	0.146	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
358	CFRHS300X	CFRHS300X	0.157	1.000	0.157	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
359	CFRHS300X	CFRHS300X	0.146	1.000	0.146	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
360	CFRHS300X	CFRHS300X	0.157	1.000	0.157	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
361	CFRHS300X	CFRHS300X	0.145	1.000	0.145	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
362	CFRHS300X	CFRHS300X	0.156	1.000	0.156	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
363	CFRHS300X	CFRHS300X	0.145	1.000	0.145	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
364	CFRHS300X	CFRHS300X	0.153	1.000	0.153	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
365	CFRHS300X	CFRHS300X	0.147	1.000	0.147	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
366	CFRHS300X	CFRHS300X	0.158	1.000	0.158	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
367	CFRHS300X	CFRHS300X	0.136	1.000	0.136	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
368	CFRHS300X	CFRHS300X	0.143	1.000	0.143	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
369	CFRHS300X	CFRHS300X	0.137	1.000	0.137	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
370	CFRHS300X	CFRHS300X	0.143	1.000	0.143	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
371	CFRHS300X	CFRHS300X	0.138	1.000	0.138	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
372	CFRHS300X	CFRHS300X	0.143	1.000	0.143	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
373	CFRHS300X	CFRHS300X	0.138	1.000	0.138	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
374	CFRHS300X	CFRHS300X	0.143	1.000	0.143	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
375	CFRHS300X	CFRHS300X	0.139	1.000	0.139	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
376	CFRHS300X	CFRHS300X	0.142	1.000	0.142	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
377	CFRHS300X	CFRHS300X	0.114	1.000	0.114	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
378	CFRHS300X	CFRHS300X	0.140	1.000	0.140	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
379	CFRHS300X	CFRHS300X	0.113	1.000	0.113	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
380	CFRHS300X	CFRHS300X	0.139	1.000	0.139	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
381	CFRHS300X	CFRHS300X	0.115	1.000	0.115	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
382	CFRHS300X	CFRHS300X	0.141	1.000	0.141	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
383	CFRHS300X	CFRHS300X	0.110	1.000	0.110	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
384	CFRHS300X	CFRHS300X	0.141	1.000	0.141	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
385	CFRHS300X	CFRHS300X	0.113	1.000	0.113	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
386	CFRHS300X	CFRHS300X	0.139	1.000	0.139	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
387	CFRHS300X	CFRHS300X	0.152	1.000	0.152	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
388	CFRHS300X	CFRHS300X	0.115	1.000	0.115	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
389	CFRHS300X	CFRHS300X	0.155	1.000	0.155	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
390	CFRHS300X	CFRHS300X	0.118	1.000	0.118	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
391	CFRHS300X	CFRHS300X	0.155	1.000	0.155	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
392	CFRHS300X	CFRHS300X	0.118	1.000	0.118	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
393	CFRHS300X	CFRHS300X	0.155	1.000	0.155	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
394	CFRHS300X	CFRHS300X	0.118	1.000	0.118	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
395	CFRHS300X	CFRHS300X	0.155	1.000	0.155	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
396	CFRHS300X	CFRHS300X	0.118	1.000	0.118	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
397	CFRHS300X	CFRHS300X	0.331	1.000	0.331	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
398	CFRHS300X	CFRHS300X	0.150	1.000	0.150	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
399	CFRHS300X	CFRHS300X	0.331	1.000	0.331	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
400	CFRHS300X	CFRHS300X	0.150	1.000	0.150	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
401	CFRHS300X	CFRHS300X	0.330	1.000	0.330	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
402	CFRHS300X	CFRHS300X	0.150	1.000	0.150	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
403	CFRHS300X	CFRHS300X	0.316	1.000	0.316	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
404	CFRHS300X	CFRHS300X	0.144	1.000	0.144	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
405	CFRHS300X	CFRHS300X	0.331	1.000	0.331	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
406	CFRHS300X	CFRHS300X	0.150	1.000	0.150	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3

Beam Maximum Relative Displacements

Distances to maxima are given from beam end A.

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
3	1	3.905	104:SLS2, ID:	-0.147	1.953	-0.000	2.603	0.147	1.953	> 10000
4	5	3.905	104:SLS2, ID:	-0.146	1.953	0.000	2.278	0.147	1.953	> 10000
5	6	3.905	104:SLS2, ID:	-0.147	1.953	-0.000	3.254	0.147	1.953	> 10000
6	7	3.905	104:SLS2, ID:	-0.128	2.278	0.000	3.580	0.129	2.278	> 10000
7	8	3.905	104:SLS2, ID:	-0.146	2.278	0.000	0.325	0.147	2.278	> 10000
8	9	3.905	104:SLS2, ID:	-0.154	1.627	-0.000	0.651	0.156	1.627	> 10000
9	10	3.905	104:SLS2, ID:	-0.163	1.953	0.000	1.627	0.165	1.953	> 10000
10	11	3.905	104:SLS2, ID:	-0.154	1.627	-0.000	2.278	0.156	1.627	> 10000
13	12	3.905	104:SLS2, ID:	-0.147	1.627	0.030	3.254	0.150	1.627	> 10000
14	16	3.905	104:SLS2, ID:	-0.149	1.627	0.039	2.603	0.152	1.627	> 10000
15	17	3.905	104:SLS2, ID:	-0.145	2.278	0.017	0.651	0.146	2.278	> 10000
16	18	3.905	104:SLS2, ID:	-0.144	1.627	0.017	3.254	0.145	1.627	> 10000
17	19	3.905	104:SLS2, ID:	-0.148	1.953	0.037	2.929	0.149	1.953	> 10000
18	20	3.905	104:SLS2, ID:	-0.148	1.953	0.036	2.929	0.149	1.953	> 10000
19	21	3.905	104:SLS2, ID:	-0.148	1.953	0.018	0.325	0.149	1.953	> 10000
20	22	3.905	104:SLS2, ID:	-0.141	2.278	-0.017	1.627	0.141	2.278	> 10000
23	23	3.905	104:SLS2, ID:	-0.141	1.953	-0.022	0.976	0.141	1.953	> 10000
24	27	3.905	104:SLS2, ID:	-0.141	1.953	-0.031	3.254	0.142	1.627	> 10000
25	28	3.905	104:SLS2, ID:	-0.145	1.953	-0.039	3.254	0.148	1.953	> 10000
26	29	3.905	104:SLS2, ID:	-0.145	1.953	-0.035	3.580	0.148	1.953	> 10000
27	30	3.905	104:SLS2, ID:	-0.142	1.953	-0.030	3.254	0.143	1.627	> 10000
28	31	3.905	104:SLS2, ID:	-0.142	1.953	0.033	2.603	0.142	1.953	> 10000
29	32	3.905	104:SLS2, ID:	-0.142	1.953	0.026	2.929	0.142	1.953	> 10000
30	33	3.905	104:SLS2, ID:	-0.142	1.953	-0.025	1.627	0.143	1.627	> 10000
33	34	3.905	104:SLS2, ID:	-0.151	1.953	-0.012	1.302	0.152	1.953	> 10000
34	38	3.905	104:SLS2, ID:	-0.141	2.278	-0.014	3.254	0.141	2.278	> 10000
35	39	3.905	104:SLS2, ID:	-0.151	1.953	0.011	3.254	0.152	1.953	> 10000
36	40	3.905	104:SLS2, ID:	-0.151	2.278	-0.011	2.278	0.152	2.278	> 10000
37	41	3.905	104:SLS2, ID:	-0.151	1.953	-0.011	0.651	0.152	1.953	> 10000
38	42	3.905	104:SLS2, ID:	-0.151	1.953	0.011	0.651	0.152	1.953	> 10000
39	43	3.905	104:SLS2, ID:	-0.137	1.953	0.011	3.580	0.137	1.953	> 10000
40	44	3.905	104:SLS2, ID:	-0.137	1.953	0.016	2.603	0.137	1.953	> 10000
43	45	3.905	104:SLS2, ID:	-0.137	1.953	0.010	0.325	0.137	1.953	> 10000
44	49	3.905	104:SLS2, ID:	-0.137	1.953	-0.014	3.254	0.137	1.953	> 10000
45	50	3.905	104:SLS2, ID:	-0.151	1.953	-0.009	0.325	0.152	1.953	> 10000
46	51	3.905	104:SLS2, ID:	-0.153	1.627	0.016	3.580	0.154	1.627	> 10000
47	52	3.905	104:SLS2, ID:	-0.141	1.627	-0.009	1.302	0.141	1.627	> 10000
48	53	3.905	104:SLS2, ID:	-0.138	1.627	-0.014	1.953	0.138	1.627	> 10000
49	54	3.905	104:SLS2, ID:	-0.151	1.627	0.012	2.929	0.152	1.627	> 10000
50	55	3.905	104:SLS2, ID:	-0.151	1.953	0.012	1.302	0.152	1.953	> 10000
53	56	3.905	104:SLS2, ID:	-0.138	1.627	-0.026	0.651	0.139	1.953	> 10000
54	60	3.905	104:SLS2, ID:	-0.142	1.953	0.025	1.627	0.142	1.627	> 10000
55	61	3.905	104:SLS2, ID:	-0.145	1.953	0.051	3.580	0.148	1.953	> 10000
56	62	3.905	104:SLS2, ID:	-0.141	1.953	0.022	2.929	0.141	1.953	> 10000
57	63	3.905	104:SLS2, ID:	-0.142	1.953	-0.050	2.929	0.142	1.953	> 10000
58	64	3.905	104:SLS2, ID:	-0.136	1.627	-0.057	3.580	0.142	1.953	> 10000
59	65	3.905	104:SLS2, ID:	-0.142	1.953	-0.026	2.929	0.142	1.953	> 10000
60	66	3.905	104:SLS2, ID:	-0.142	1.953	0.031	2.603	0.142	1.953	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
63	67	3.905	104:SLS2, ID:	-0.148	1.953	-0.017	2.929	0.149	1.953	> 10000
64	71	3.905	104:SLS2, ID:	-0.148	1.953	-0.018	3.580	0.149	1.953	> 10000
65	72	3.905	104:SLS2, ID:	-0.148	1.953	-0.017	0.976	0.149	1.953	> 10000
66	73	3.905	104:SLS2, ID:	-0.144	1.627	-0.017	0.651	0.145	1.627	> 10000
67	74	3.905	104:SLS2, ID:	-0.148	1.953	-0.037	2.929	0.149	1.953	> 10000
68	75	3.905	104:SLS2, ID:	-0.148	1.953	-0.037	2.929	0.149	1.953	> 10000
69	76	3.905	104:SLS2, ID:	-0.145	2.278	-0.027	2.929	0.146	2.278	> 10000
70	77	3.905	104:SLS2, ID:	-0.148	1.953	-0.018	0.325	0.149	1.953	> 10000
71	2	6.335	104:SLS2, ID:	-1.270	3.167	0.022	3.167	1.270	3.167	4989
72	2	6.335	104:SLS2, ID:	-1.270	3.167	-0.022	3.167	1.270	3.167	4989
73	13	6.335	104:SLS2, ID:	-1.270	3.167	-0.005	1.056	1.270	3.167	4989
74	24	6.335	104:SLS2, ID:	-1.270	3.167	0.015	3.167	1.270	3.167	4989
75	35	6.335	104:SLS2, ID:	-1.270	3.167	-0.025	3.167	1.270	3.167	4989
76	46	6.335	104:SLS2, ID:	-1.270	3.167	-0.015	3.167	1.270	3.167	4989
77	57	6.335	104:SLS2, ID:	-1.270	3.167	0.006	4.751	1.270	3.167	4989
78	37	3.731	104:SLS2, ID:	-0.153	1.866	0.016	2.799	0.153	1.866	> 10000
79	26	3.731	104:SLS2, ID:	-0.153	1.866	-0.006	0.933	0.153	1.866	> 10000
80	15	3.731	104:SLS2, ID:	-0.153	1.866	-0.022	0.311	0.153	1.866	> 10000
81	4	3.731	104:SLS2, ID:	-0.153	1.866	0.022	0.933	0.153	1.866	> 10000
82	70	3.731	104:SLS2, ID:	-0.153	1.866	0.005	0.933	0.153	1.866	> 10000
83	59	3.731	104:SLS2, ID:	-0.153	1.866	-0.016	1.555	0.153	1.866	> 10000
84	48	3.731	104:SLS2, ID:	-0.153	1.866	0.000	0.000	0.153	1.866	> 10000
85	24	3.000	104:SLS2, ID:	-0.064	1.500	-0.024	1.500	0.068	1.500	> 10000
86	13	3.000	104:SLS2, ID:	-0.064	1.500	-0.000	0.500	0.064	1.500	> 10000
87	2	3.000	104:SLS2, ID:	-0.064	1.500	0.000	0.000	0.068	1.500	> 10000
88	68	3.000	104:SLS2, ID:	-0.064	1.500	0.000	1.750	0.064	1.500	> 10000
89	59	3.000	104:SLS2, ID:	-0.064	1.500	0.016	2.750	0.064	1.750	> 10000
90	35	3.000	104:SLS2, ID:	-0.064	1.500	0.007	2.500	0.064	1.750	> 10000
91	46	3.000	104:SLS2, ID:	-0.064	1.500	0.011	2.500	0.068	1.500	> 10000
92	78	6.335	104:SLS2, ID:	-17.442	3.167	0.022	3.167	17.442	3.167	363
93	78	6.335	104:SLS2, ID:	-17.444	3.167	0.045	5.807	17.444	3.167	363
94	80	6.335	104:SLS2, ID:	-17.444	3.167	-0.008	4.751	17.444	3.167	363
95	81	6.335	104:SLS2, ID:	-9.402	3.167	0.020	5.279	9.402	3.167	674
96	82	6.335	104:SLS2, ID:	-17.440	3.167	0.000	0.000	17.440	3.167	363
97	83	6.335	104:SLS2, ID:	-17.443	3.167	0.021	4.223	17.443	3.167	363
98	84	6.335	104:SLS2, ID:	-17.444	3.167	-0.006	3.167	17.444	3.167	363
99	44	3.731	104:SLS2, ID:	-2.987	1.866	0.026	3.110	2.987	1.866	1249
100	33	3.731	104:SLS2, ID:	-2.987	1.866	0.006	0.933	2.987	1.866	1249
101	22	3.731	104:SLS2, ID:	-2.987	1.866	0.034	3.420	2.987	1.866	1249
102	11	3.731	104:SLS2, ID:	-2.987	1.866	-0.022	2.799	2.987	1.866	1249
103	77	3.731	104:SLS2, ID:	-2.987	1.866	-0.008	3.110	2.987	1.866	1249
104	66	3.731	104:SLS2, ID:	-2.987	1.866	0.010	3.420	2.987	1.866	1249
105	55	3.731	104:SLS2, ID:	-2.986	1.866	-0.050	2.799	2.986	1.866	1250
106	10	6.335	104:SLS2, ID:	-17.443	3.167	0.022	3.167	17.443	3.167	363
107	10	6.335	104:SLS2, ID:	-17.444	3.167	0.022	5.279	17.444	3.167	363
108	21	6.335	104:SLS2, ID:	-17.444	3.167	-0.001	5.807	17.444	3.167	363
109	32	6.335	104:SLS2, ID:	-9.403	3.167	0.023	3.695	9.403	3.167	674
110	43	6.335	104:SLS2, ID:	-17.443	3.167	0.000	0.528	17.443	3.167	363
111	54	6.335	104:SLS2, ID:	-17.443	3.167	-0.000	4.751	17.443	3.167	363

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
112	65	6.335	104:SLS2, ID:	-17.443	3.167	-0.006	5.807	17.443	3.167	363
113	85	3.731	104:SLS2, ID:	-2.987	1.866	0.021	2.488	2.987	1.866	1249
114	86	3.731	104:SLS2, ID:	-2.986	1.866	-0.006	0.933	2.986	1.866	1250
115	87	3.731	104:SLS2, ID:	-2.987	1.866	-0.000	0.311	2.987	1.866	1249
116	88	3.731	104:SLS2, ID:	-2.987	1.866	-0.033	3.420	2.987	1.866	1249
117	89	3.731	104:SLS2, ID:	-2.987	1.866	0.005	0.933	2.987	1.866	1249
118	90	3.731	104:SLS2, ID:	-2.987	1.866	-0.026	3.420	2.987	1.866	1249
119	91	3.731	104:SLS2, ID:	-2.987	1.866	-0.025	1.866	2.987	1.866	1249
120	92	6.335	104:SLS2, ID:	-17.441	3.167	0.052	5.279	17.441	3.167	363
121	92	6.335	104:SLS2, ID:	-17.444	3.167	-0.030	4.223	17.444	3.167	363
122	94	6.335	104:SLS2, ID:	-17.442	3.167	-0.007	4.223	17.442	3.167	363
123	95	6.335	104:SLS2, ID:	-9.403	3.167	-0.026	5.279	9.403	3.167	674
124	96	6.335	104:SLS2, ID:	-17.440	3.167	0.050	4.223	17.440	3.167	363
125	97	6.335	104:SLS2, ID:	-17.444	3.167	0.018	5.807	17.444	3.167	363
126	98	6.335	104:SLS2, ID:	-17.444	3.167	-0.006	4.751	17.444	3.167	363
127	42	3.731	104:SLS2, ID:	-2.986	1.866	0.026	3.420	2.986	1.866	1250
128	31	3.731	104:SLS2, ID:	-2.986	1.866	0.009	3.420	2.986	1.866	1250
129	20	3.731	104:SLS2, ID:	-2.986	1.866	-0.022	2.799	2.986	1.866	1250
130	9	3.731	104:SLS2, ID:	-2.986	1.866	0.030	2.488	2.986	1.866	1250
131	75	3.731	104:SLS2, ID:	-2.986	1.866	0.006	1.866	2.986	1.866	1250
132	64	3.731	104:SLS2, ID:	-2.986	1.866	0.016	0.622	2.986	1.866	1250
133	53	3.731	104:SLS2, ID:	-2.986	1.866	-0.025	0.933	2.986	1.866	1250
134	8	6.335	104:SLS2, ID:	-17.443	3.167	-0.030	5.279	17.443	3.167	363
135	8	6.335	104:SLS2, ID:	-17.443	3.167	0.045	4.751	17.443	3.167	363
136	19	6.335	104:SLS2, ID:	-17.444	3.167	-0.005	0.528	17.444	3.167	363
137	30	6.335	104:SLS2, ID:	-9.403	3.167	0.023	5.807	9.403	3.167	674
138	41	6.335	104:SLS2, ID:	-17.442	3.167	0.025	3.167	17.442	3.167	363
139	52	6.335	104:SLS2, ID:	-17.443	3.167	-0.018	2.639	17.443	3.167	363
140	63	6.335	104:SLS2, ID:	-17.444	3.167	-0.005	3.167	17.444	3.167	363
141	99	3.731	104:SLS2, ID:	-2.986	1.866	-0.023	3.420	2.986	1.866	1250
142	100	3.731	104:SLS2, ID:	-2.986	1.866	-0.013	3.420	2.986	1.866	1250
143	101	3.731	104:SLS2, ID:	-2.986	1.866	0.052	3.110	2.986	1.866	1250
144	102	3.731	104:SLS2, ID:	-2.986	1.866	-0.045	3.109	2.986	1.866	1250
145	103	3.731	104:SLS2, ID:	-2.986	1.866	0.007	3.110	2.986	1.866	1250
146	104	3.731	104:SLS2, ID:	-2.986	1.866	0.021	2.488	2.986	1.866	1250
147	105	3.731	104:SLS2, ID:	-2.986	1.866	-0.025	0.622	2.986	1.866	1250
148	106	6.335	104:SLS2, ID:	-17.441	3.167	0.026	5.807	17.441	3.167	363
149	106	6.335	104:SLS2, ID:	-17.444	3.167	-0.030	5.279	17.444	3.167	363
150	108	6.335	104:SLS2, ID:	-17.442	3.167	-0.005	3.167	17.442	3.167	363
151	109	6.335	104:SLS2, ID:	-9.402	3.167	-0.016	1.584	9.402	3.167	674
152	110	6.335	104:SLS2, ID:	-17.440	3.167	0.050	4.223	17.440	3.167	363
153	111	6.335	104:SLS2, ID:	-17.444	3.167	-0.016	3.695	17.444	3.167	363
154	112	6.335	104:SLS2, ID:	-17.444	3.167	0.009	4.751	17.444	3.167	363
155	40	3.731	104:SLS2, ID:	-2.986	1.866	0.021	2.488	2.986	1.866	1250
156	29	3.731	104:SLS2, ID:	-2.986	1.866	-0.006	2.799	2.986	1.866	1250
157	18	3.731	104:SLS2, ID:	-2.986	1.866	0.015	3.109	2.986	1.866	1250
158	7	3.731	104:SLS2, ID:	-2.987	1.866	0.030	3.420	2.987	1.866	1249
159	73	3.731	104:SLS2, ID:	-2.986	1.866	-0.006	2.177	2.986	1.866	1250
160	62	3.731	104:SLS2, ID:	-2.987	1.866	-0.015	0.933	2.987	1.866	1249

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
161	51	3.731	104:SLS2, ID:	-2.986	1.866	-0.033	1.555	2.986	1.866	1250
162	6	6.335	104:SLS2, ID:	-17.443	3.167	0.026	5.807	17.443	3.167	363
163	6	6.335	104:SLS2, ID:	-17.444	3.167	0.030	4.223	17.444	3.167	363
164	17	6.335	104:SLS2, ID:	-17.444	3.167	-0.013	5.807	17.444	3.167	363
165	28	6.335	104:SLS2, ID:	-9.402	3.167	-0.021	5.807	9.402	3.167	674
166	39	6.335	104:SLS2, ID:	-17.443	3.167	-0.017	1.056	17.443	3.167	363
167	50	6.335	104:SLS2, ID:	-17.443	3.167	0.021	5.279	17.443	3.167	363
168	61	6.335	104:SLS2, ID:	-17.444	3.167	0.006	1.056	17.444	3.167	363
169	113	3.731	104:SLS2, ID:	-2.986	1.866	-0.023	3.420	2.986	1.866	1250
170	114	3.731	104:SLS2, ID:	-2.986	1.866	0.007	2.488	2.986	1.866	1250
171	115	3.731	104:SLS2, ID:	-2.986	1.866	0.022	0.933	2.986	1.866	1250
172	116	3.731	104:SLS2, ID:	-2.986	1.866	-0.041	3.420	2.986	1.866	1250
173	117	3.731	104:SLS2, ID:	-2.986	1.866	0.008	3.420	2.986	1.866	1250
174	118	3.731	104:SLS2, ID:	-2.986	1.866	0.018	1.555	2.986	1.866	1250
175	119	3.731	104:SLS2, ID:	-2.986	1.866	0.025	0.311	2.986	1.866	1250
176	120	6.335	104:SLS2, ID:	-17.441	3.167	-0.015	5.279	17.441	3.167	363
177	120	6.335	104:SLS2, ID:	-17.444	3.167	-0.026	5.807	17.444	3.167	363
178	122	6.335	104:SLS2, ID:	-17.443	3.167	0.013	5.807	17.443	3.167	363
179	123	6.335	104:SLS2, ID:	-9.402	3.167	0.028	5.807	9.402	3.167	674
180	124	6.335	104:SLS2, ID:	-17.441	3.167	-0.029	5.807	17.441	3.167	363
181	125	6.335	104:SLS2, ID:	-17.443	3.167	0.016	3.167	17.443	3.167	363
182	126	6.335	104:SLS2, ID:	-17.444	3.167	-0.006	3.167	17.444	3.167	363
183	38	3.731	104:SLS2, ID:	-2.986	1.866	-0.000	2.488	2.986	1.866	1250
184	27	3.731	104:SLS2, ID:	-2.986	1.866	0.006	0.311	2.986	1.866	1250
185	16	3.731	104:SLS2, ID:	-2.986	1.866	-0.026	1.555	2.986	1.866	1250
186	5	3.731	104:SLS2, ID:	-2.986	1.866	0.022	0.933	2.986	1.866	1250
187	71	3.731	104:SLS2, ID:	-2.986	1.866	0.005	1.866	2.986	1.866	1250
188	60	3.731	104:SLS2, ID:	-2.986	1.866	-0.000	1.244	2.986	1.866	1250
189	49	3.731	104:SLS2, ID:	-2.986	1.866	0.033	2.177	2.986	1.866	1250
190	1	6.335	104:SLS2, ID:	-17.443	3.167	0.022	3.167	17.443	3.167	363
191	1	6.335	104:SLS2, ID:	-17.443	3.167	-0.022	3.167	17.443	3.167	363
192	12	6.335	104:SLS2, ID:	-17.444	3.167	-0.005	1.056	17.444	3.167	363
193	23	6.335	104:SLS2, ID:	-9.402	3.167	0.015	3.167	9.402	3.167	674
194	34	6.335	104:SLS2, ID:	-17.443	3.167	0.029	3.695	17.443	3.167	363
195	45	6.335	104:SLS2, ID:	-17.443	3.167	-0.015	3.167	17.443	3.167	363
196	56	6.335	104:SLS2, ID:	-17.443	3.167	0.006	4.751	17.443	3.167	363
197	36	3.731	104:SLS2, ID:	-2.986	1.866	0.016	2.799	2.986	1.866	1250
198	25	3.731	104:SLS2, ID:	-2.986	1.866	-0.006	0.933	2.986	1.866	1250
199	14	3.731	104:SLS2, ID:	-2.986	1.866	-0.022	0.311	2.986	1.866	1250
200	3	3.731	104:SLS2, ID:	-2.986	1.866	0.022	0.933	2.986	1.866	1250
201	69	3.731	104:SLS2, ID:	-2.986	1.866	0.005	0.933	2.986	1.866	1250
202	58	3.731	104:SLS2, ID:	-2.986	1.866	-0.016	1.555	2.986	1.866	1250
203	47	3.731	104:SLS2, ID:	-2.986	1.866	0.000	0.000	2.986	1.866	1250
204	23	3.000	104:SLS2, ID:	-0.064	1.500	-0.024	1.500	0.069	1.500	> 10000
205	12	3.000	104:SLS2, ID:	-0.064	1.500	-0.000	0.500	0.064	1.500	> 10000
206	1	3.000	104:SLS2, ID:	-0.064	1.500	0.000	0.000	0.069	1.500	> 10000
207	67	3.000	104:SLS2, ID:	-0.064	1.500	0.000	1.750	0.064	1.500	> 10000
208	58	3.000	104:SLS2, ID:	-0.064	1.500	0.016	2.750	0.064	1.750	> 10000
209	34	3.000	104:SLS2, ID:	-0.064	1.500	0.007	2.500	0.064	1.750	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
210	45	3.000	104:SLS2, ID:	-0.064	1.500	0.011	2.500	0.069	1.500	> 10000
212	82	2.500	104:SLS2, ID:	-0.304	1.042	-0.029	0.833	0.304	1.042	8216
215	41	2.500	104:SLS2, ID:	-1.144	1.250	0.028	2.083	1.145	1.250	2185
217	96	2.500	104:SLS2, ID:	-1.108	1.250	-0.045	2.292	1.108	1.250	2256
218	43	2.500	104:SLS2, ID:	-0.837	1.250	0.025	0.208	0.837	1.250	2987
219	34	2.500	104:SLS2, ID:	1.535	1.042	-0.030	1.875	1.535	1.042	1628
221	124	2.500	104:SLS2, ID:	0.406	0.833	0.023	1.042	0.406	0.833	6157
223	39	2.500	104:SLS2, ID:	-0.383	1.250	-0.021	1.458	0.383	1.250	6523
224	110	2.500	104:SLS2, ID:	-0.899	1.250	-0.040	2.292	0.899	1.250	2780
226	44	2.500	104:SLS2, ID:	-0.286	1.042	0.024	2.292	0.286	1.042	8752
229	99	2.500	104:SLS2, ID:	-1.107	1.250	-0.028	2.083	1.107	1.250	2258
231	42	2.500	104:SLS2, ID:	-1.086	1.250	0.018	1.458	1.086	1.250	2303
232	85	2.500	104:SLS2, ID:	-0.804	1.250	0.021	0.208	0.804	1.250	3110
233	36	2.500	104:SLS2, ID:	1.507	1.250	0.041	2.083	1.507	1.250	1659
235	38	2.500	104:SLS2, ID:	0.425	1.042	-0.022	2.083	0.425	1.042	5884
237	113	2.500	104:SLS2, ID:	-0.414	1.458	-0.032	2.083	0.414	1.458	6032
238	40	2.500	104:SLS2, ID:	-0.889	1.250	0.021	2.083	0.889	1.250	2813
240	83	2.500	104:SLS2, ID:	-0.310	1.042	-0.023	0.208	0.310	1.042	8064
243	52	2.500	104:SLS2, ID:	-1.122	1.250	-0.023	2.292	1.122	1.250	2229
245	97	2.500	104:SLS2, ID:	-1.119	1.250	0.031	1.875	1.119	1.250	2233
246	54	2.500	104:SLS2, ID:	-0.840	1.250	0.021	0.208	0.840	1.250	2976
247	45	2.500	104:SLS2, ID:	1.537	1.042	0.021	1.042	1.537	1.042	1626
249	125	2.500	104:SLS2, ID:	0.425	1.042	0.025	1.042	0.426	1.042	5878
251	50	2.500	104:SLS2, ID:	-0.393	1.250	-0.054	2.292	0.395	1.250	6357
252	111	2.500	104:SLS2, ID:	-0.900	1.250	0.022	1.667	0.900	1.250	2776
254	55	2.500	104:SLS2, ID:	-0.290	0.833	-0.032	1.458	0.291	0.833	8613
257	105	2.500	104:SLS2, ID:	-1.116	1.250	-0.026	0.208	1.116	1.250	2241
259	53	2.500	104:SLS2, ID:	-1.099	1.250	-0.022	2.083	1.099	1.250	2274
260	91	2.500	104:SLS2, ID:	-0.792	1.250	0.030	2.292	0.792	1.250	3159
261	47	2.500	104:SLS2, ID:	1.507	1.250	-0.019	0.208	1.507	1.250	1659
263	49	2.500	104:SLS2, ID:	0.421	1.042	0.025	0.625	0.421	1.042	5935
265	119	2.500	104:SLS2, ID:	-0.411	1.250	-0.022	1.250	0.412	1.250	6082
266	51	2.500	104:SLS2, ID:	-0.880	1.250	0.024	1.458	0.880	1.250	2841
267	3	2.500	104:SLS2, ID:	1.513	1.250	-0.025	1.250	1.513	1.250	1652
280	11	2.500	104:SLS2, ID:	-0.285	1.042	-0.037	1.875	0.286	1.042	8765
281	14	2.500	104:SLS2, ID:	1.520	1.250	0.019	1.667	1.520	1.250	1644
294	22	2.500	104:SLS2, ID:	-0.288	1.042	-0.017	0.417	0.288	1.042	8690
295	25	2.500	104:SLS2, ID:	1.525	1.250	-0.007	0.208	1.525	1.250	1639
308	33	2.500	104:SLS2, ID:	-0.306	1.042	-0.013	0.833	0.306	1.042	8173
309	58	2.500	104:SLS2, ID:	1.526	1.250	0.005	1.667	1.526	1.250	1638
322	66	2.500	104:SLS2, ID:	-0.277	1.250	-0.011	1.250	0.278	1.250	9011
323	69	2.500	104:SLS2, ID:	1.520	1.042	-0.012	0.833	1.520	1.042	1644
336	77	2.500	104:SLS2, ID:	-0.283	1.250	-0.019	0.833	0.283	1.250	8833
337	10	2.500	104:SLS2, ID:	-0.850	1.250	0.045	2.292	0.851	1.250	2940
338	78	2.500	104:SLS2, ID:	-0.310	1.042	0.000	0.000	0.310	1.042	8064
339	76	2.500	104:SLS2, ID:	-0.859	1.042	0.023	0.833	0.859	1.042	2910
340	79	2.500	104:SLS2, ID:	-0.316	1.042	-0.025	2.083	0.316	1.042	7917
341	21	2.500	104:SLS2, ID:	-0.845	1.042	-0.015	2.292	0.845	1.042	2957
342	80	2.500	104:SLS2, ID:	-0.299	0.833	0.023	1.458	0.299	0.833	8372

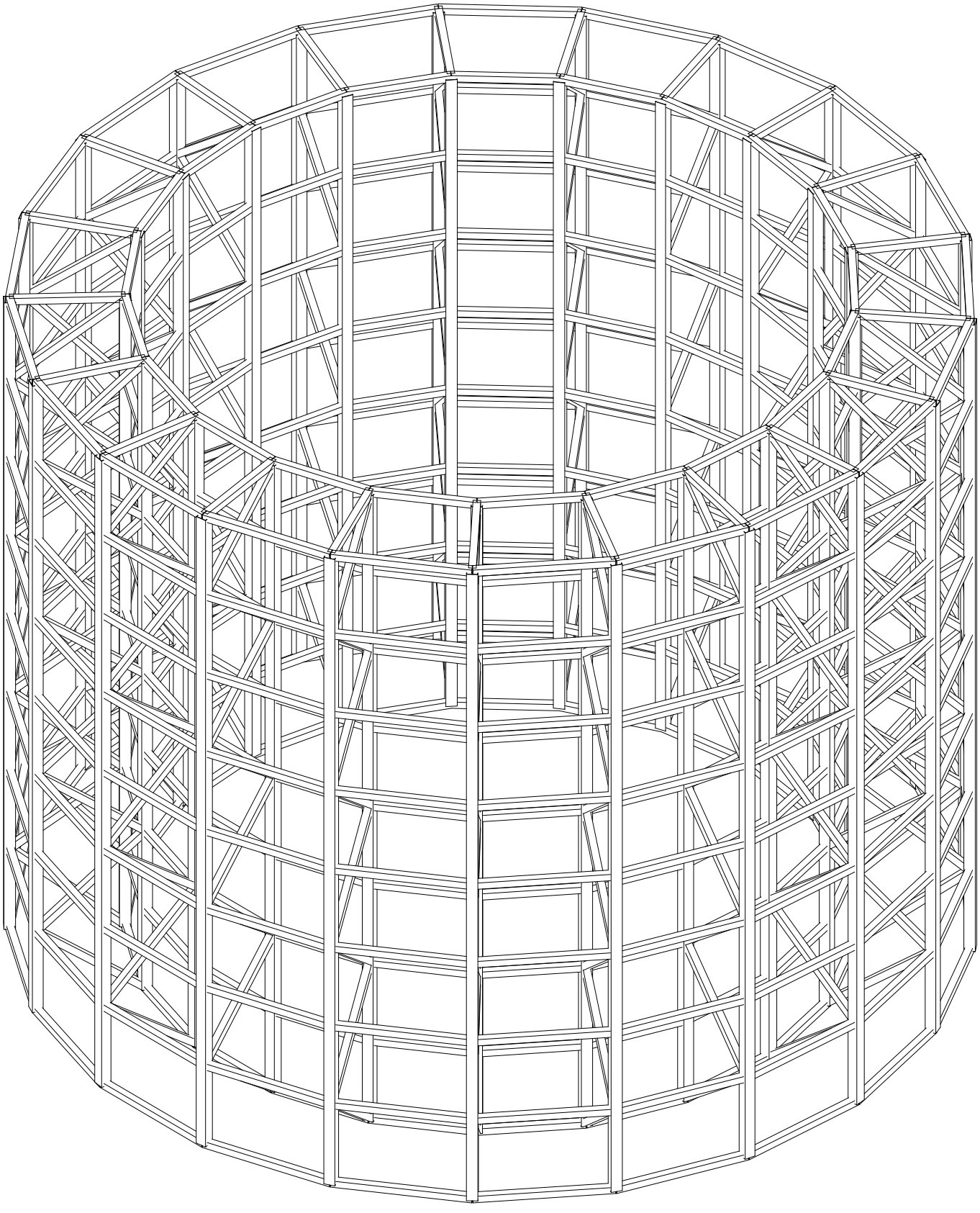
Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
343	32	2.500	104:SLS2, ID:	-0.843	1.042	0.007	0.833	0.843	1.042	2967
344	81	2.500	104:SLS2, ID:	-0.287	0.833	0.008	1.458	0.287	0.833	8698
345	65	2.500	104:SLS2, ID:	-0.889	1.250	-0.010	1.875	0.889	1.250	2813
346	84	2.500	104:SLS2, ID:	-0.291	0.625	-0.007	0.625	0.291	0.625	8592
347	31	2.500	104:SLS2, ID:	-1.093	1.250	0.008	1.667	1.093	1.250	2288
348	86	2.500	104:SLS2, ID:	-0.809	1.042	-0.005	2.083	0.809	1.042	3090
349	20	2.500	104:SLS2, ID:	-1.104	1.250	-0.024	2.292	1.104	1.250	2265
350	87	2.500	104:SLS2, ID:	-0.797	1.250	-0.011	1.875	0.797	1.250	3136
351	9	2.500	104:SLS2, ID:	-1.089	1.250	0.025	1.250	1.089	1.250	2296
352	88	2.500	104:SLS2, ID:	-0.806	1.250	-0.000	1.458	0.806	1.250	3102
353	75	2.500	104:SLS2, ID:	-1.081	1.250	-0.032	2.292	1.081	1.250	2313
354	89	2.500	104:SLS2, ID:	-0.819	1.042	0.018	2.083	0.819	1.042	3054
355	64	2.500	104:SLS2, ID:	-1.094	1.250	0.012	1.667	1.094	1.250	2284
356	90	2.500	104:SLS2, ID:	-0.809	1.042	-0.006	1.667	0.809	1.042	3091
357	8	2.500	104:SLS2, ID:	-1.132	1.250	-0.045	2.292	1.133	1.250	2208
358	92	2.500	104:SLS2, ID:	-1.114	1.250	0.000	0.000	1.114	1.250	2245
359	74	2.500	104:SLS2, ID:	-1.140	1.250	0.020	1.042	1.140	1.250	2194
360	93	2.500	104:SLS2, ID:	-1.092	1.250	-0.029	1.875	1.092	1.250	2290
361	19	2.500	104:SLS2, ID:	-1.119	1.250	0.028	2.083	1.119	1.250	2235
362	94	2.500	104:SLS2, ID:	-1.112	1.250	-0.023	2.292	1.112	1.250	2249
363	30	2.500	104:SLS2, ID:	-1.144	1.250	-0.005	1.458	1.144	1.250	2185
364	95	2.500	104:SLS2, ID:	-1.143	1.250	0.010	1.667	1.143	1.250	2187
365	63	2.500	104:SLS2, ID:	-1.144	1.250	-0.013	2.083	1.144	1.250	2186
366	98	2.500	104:SLS2, ID:	-1.095	1.250	0.011	1.458	1.095	1.250	2283
367	29	2.500	104:SLS2, ID:	-0.889	1.250	-0.011	2.292	0.889	1.250	2811
368	100	2.500	104:SLS2, ID:	-1.119	1.250	0.007	2.083	1.119	1.250	2234
369	18	2.500	104:SLS2, ID:	-0.889	1.250	0.015	1.458	0.889	1.250	2814
370	101	2.500	104:SLS2, ID:	-1.110	1.250	0.030	2.083	1.110	1.250	2253
371	7	2.500	104:SLS2, ID:	-0.885	1.250	0.050	1.667	0.886	1.250	2824
372	102	2.500	104:SLS2, ID:	-1.112	1.250	-0.033	2.083	1.112	1.250	2249
373	73	2.500	104:SLS2, ID:	-0.878	1.458	0.015	0.208	0.878	1.458	2848
374	103	2.500	104:SLS2, ID:	-1.132	1.250	0.024	2.083	1.132	1.250	2209
375	62	2.500	104:SLS2, ID:	-0.891	1.250	-0.008	2.292	0.891	1.250	2807
376	104	2.500	104:SLS2, ID:	-1.143	1.250	-0.011	1.875	1.143	1.250	2188
377	6	2.500	104:SLS2, ID:	-0.390	1.458	0.000	1.458	0.390	1.458	6409
378	106	2.500	104:SLS2, ID:	-0.897	1.250	0.050	1.250	0.899	1.250	2787
379	72	2.500	104:SLS2, ID:	-0.385	1.458	-0.018	1.042	0.385	1.458	6487
380	107	2.500	104:SLS2, ID:	-0.910	1.250	0.017	1.458	0.910	1.250	2747
381	17	2.500	104:SLS2, ID:	-0.385	1.458	0.016	1.042	0.385	1.458	6487
382	108	2.500	104:SLS2, ID:	-0.892	1.250	0.015	0.417	0.892	1.250	2802
383	28	2.500	104:SLS2, ID:	-0.405	1.667	0.013	1.875	0.405	1.667	6178
384	109	2.500	104:SLS2, ID:	-0.894	1.458	-0.008	2.083	0.894	1.458	2797
385	61	2.500	104:SLS2, ID:	-0.389	1.667	-0.007	0.833	0.389	1.667	6424
386	112	2.500	104:SLS2, ID:	-0.891	1.250	0.010	1.667	0.891	1.250	2805
387	27	2.500	104:SLS2, ID:	0.424	0.833	0.008	0.208	0.424	0.833	5892
388	114	2.500	104:SLS2, ID:	-0.432	1.250	-0.007	0.833	0.432	1.250	5792
389	16	2.500	104:SLS2, ID:	0.425	1.042	0.017	0.208	0.425	1.042	5883
390	115	2.500	104:SLS2, ID:	-0.427	1.458	-0.035	2.292	0.427	1.458	5855
391	5	2.500	104:SLS2, ID:	0.419	1.042	0.037	1.458	0.419	1.042	5972

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
392	116	2.500	104:SLS2, ID:	-0.412	1.458	-0.050	1.667	0.414	1.458	6066
393	71	2.500	104:SLS2, ID:	0.437	1.042	-0.018	2.083	0.437	1.042	5725
394	117	2.500	104:SLS2, ID:	-0.401	1.458	-0.018	0.625	0.401	1.458	6235
395	60	2.500	104:SLS2, ID:	0.423	1.042	0.007	1.667	0.423	1.042	5916
396	118	2.500	104:SLS2, ID:	-0.402	1.458	-0.007	0.417	0.402	1.458	6211
397	1	2.500	104:SLS2, ID:	1.536	1.250	0.025	1.875	1.536	1.250	1627
398	120	2.500	104:SLS2, ID:	0.413	1.042	-0.033	2.083	0.413	1.042	6055
399	67	2.500	104:SLS2, ID:	1.549	1.250	0.020	2.083	1.549	1.250	1614
400	121	2.500	104:SLS2, ID:	0.415	0.833	0.014	0.625	0.415	0.833	6026
401	12	2.500	104:SLS2, ID:	1.544	1.042	0.024	1.875	1.544	1.042	1619
402	122	2.500	104:SLS2, ID:	0.411	1.042	-0.037	1.667	0.411	1.042	6083
403	23	2.500	104:SLS2, ID:	1.534	1.042	0.008	1.875	1.534	1.042	1629
404	123	2.500	104:SLS2, ID:	0.423	0.833	-0.014	1.458	0.423	0.833	5911
405	56	2.500	104:SLS2, ID:	1.542	1.042	0.005	1.042	1.542	1.042	1621
406	126	2.500	104:SLS2, ID:	0.428	1.042	-0.007	2.292	0.428	1.042	5844

Ulkokehä



Job Information

	Engineer	Checked	Approved
Name:	TSa		
Date:	09.02.2015		

Structure Type	SPACE FRAME

Number of Nodes	378	Highest Node	378
Number of Elements	903	Highest Beam	1197

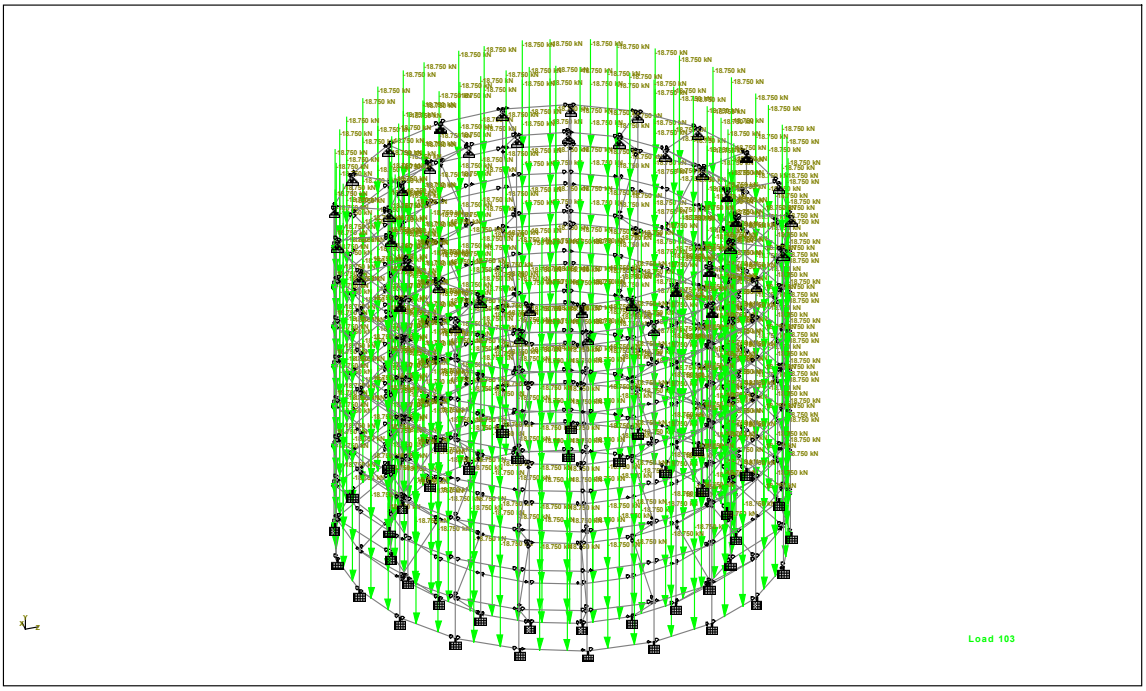
Number of Basic Load Cases	3
Number of Combination Load Cases	0

Included in this printout are data for:

All	The Whole Structure

Included in this printout are results for load cases:

Type	L/C	Name
Primary	1	SELFWEIGHT, ID: 541975
Primary	2	AUTOPAIKKA, ID: 72357
Primary	103	ULS1, ID: 1



Whole Structure Loads 2.7986kN:1m 103 ULS1, ID: 1

Utilization Ratio

Beam	Analysis Property	Design Property	Actual	Allowable	Ratio	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
			Ratio	Ratio	(Act./Allow.)						
3	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
4	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
5	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
6	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
7	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
8	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
9	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
10	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
11	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
12	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
13	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
14	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
15	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
16	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
17	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
18	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
19	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
20	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
21	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
22	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
23	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
24	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
25	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
26	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
27	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
28	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
29	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
32	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
33	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
34	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
35	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
36	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
37	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
38	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
39	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
40	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
41	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
42	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
43	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
44	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
45	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
46	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
47	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
48	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
49	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
50	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
51	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
52	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
53	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
54	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
55	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
56	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
57	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
58	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
61	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
62	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
63	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
64	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
65	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
66	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
67	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
68	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
69	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
70	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
71	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
72	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
73	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
74	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
75	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
76	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
77	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
78	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
79	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
80	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
81	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
82	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
83	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
84	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
85	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
86	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
87	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
90	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
91	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
92	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
93	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
94	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
95	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
96	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
97	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
98	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
99	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
100	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
101	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
102	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
103	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
104	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
105	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
106	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
107	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
108	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
109	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
110	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
111	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
112	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
113	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
114	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
115	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
116	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
119	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
120	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
121	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
122	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
123	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
124	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
125	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
126	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
127	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
128	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
129	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
130	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
131	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
132	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
133	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
134	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
135	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
136	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
137	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
138	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
139	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
140	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
141	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
142	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
143	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
144	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
145	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
148	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
149	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
150	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
151	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
152	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
153	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
154	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
155	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
156	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
157	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
158	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
159	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
160	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
161	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
162	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
163	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
164	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
165	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
166	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
167	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
168	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
169	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
170	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
171	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
172	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
173	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
174	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
177	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
178	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
179	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
180	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
181	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
182	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
183	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
184	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
185	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
186	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
187	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
188	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
189	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
190	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
191	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
192	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
193	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
194	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
195	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
196	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
197	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
198	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
199	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
200	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
201	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
202	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
203	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
206	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
207	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
208	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
209	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
210	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
211	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
212	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
213	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
214	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
215	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
216	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
217	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
218	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
219	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
220	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
221	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
222	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
223	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
224	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
225	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
226	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
227	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
228	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
229	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
230	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
231	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
232	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
235	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
236	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
237	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
238	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
239	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
240	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
241	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
242	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
243	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
244	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
245	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
246	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
247	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
248	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
249	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
250	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
251	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
252	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
253	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
254	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
255	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
256	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
257	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
258	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
259	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
260	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
261	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
264	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
265	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
266	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
267	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
268	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
269	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
270	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
271	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
272	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
273	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
274	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
275	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
276	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
277	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
278	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
279	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
280	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
281	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
282	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
283	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
284	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
285	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
286	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
287	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
288	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
289	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
290	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
293	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
294	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
295	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
296	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
297	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
298	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
299	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
300	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
301	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
302	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
303	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
304	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
305	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
306	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
307	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
308	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
309	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
310	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
311	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
312	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
313	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
314	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
315	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
316	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
317	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
318	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
319	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
322	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
323	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
324	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
325	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
326	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
327	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
328	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
329	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
330	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
331	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
332	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
333	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
334	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
335	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
336	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
337	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
338	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
339	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
340	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
341	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
342	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
343	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
344	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
345	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
346	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
347	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
348	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
351	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
352	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
353	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
354	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
355	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
356	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
357	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
358	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
359	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
360	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
361	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
362	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
363	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
364	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
365	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
366	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
367	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
368	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
369	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
370	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
371	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
372	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
373	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
374	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
375	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
376	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
377	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
380	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
381	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
382	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
383	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
384	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
385	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
386	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
387	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
388	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
389	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
390	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
391	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
392	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
393	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
394	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
395	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
396	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
397	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
398	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
399	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
400	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
401	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
402	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
403	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
404	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
405	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
406	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
409	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
410	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
411	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
412	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
413	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
414	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
415	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
416	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
417	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
418	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
419	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
420	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
421	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
422	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
423	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
424	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
425	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
426	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
427	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
428	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
429	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
430	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
431	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
432	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
433	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
434	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
435	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
438	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
439	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
440	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
441	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
442	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
443	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
444	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
445	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
446	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
447	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
448	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
449	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
450	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
451	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
452	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
453	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
454	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
455	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
456	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
457	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
458	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
459	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
460	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
461	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
462	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
463	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
464	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
467	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
468	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
469	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
470	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
471	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
472	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
473	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
474	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
475	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
476	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
477	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
478	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
479	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
480	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
481	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
482	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
483	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
484	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
485	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
486	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
487	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
488	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
489	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
490	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
491	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
492	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
493	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
496	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
497	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
498	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
499	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
500	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
501	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
502	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
503	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
504	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
505	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
506	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
507	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
508	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
509	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
510	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
511	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
512	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
513	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
514	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
515	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
516	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
517	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
518	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
519	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
520	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
521	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
522	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
525	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
526	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
527	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
528	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
529	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
530	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
531	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
532	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
533	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
534	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
535	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
536	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
537	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
538	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
539	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
540	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
541	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
542	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
543	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
544	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
545	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
546	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
547	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
548	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
549	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
550	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
551	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
554	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
555	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
556	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
557	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
558	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
559	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
560	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
561	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
562	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
563	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
564	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
565	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
566	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
567	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
568	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
569	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
570	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
571	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
572	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
573	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
574	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
575	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
576	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
577	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
578	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
579	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
580	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
583	CFRHS200X	CFRHS200X	0.010	1.000	0.010	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
584	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
585	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
586	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.8.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
587	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
588	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
589	CFRHS200X	CFRHS200X	0.005	1.000	0.005	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
590	CFRHS200X	CFRHS200X	0.009	1.000	0.009	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
591	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
592	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
593	CFRHS200X	CFRHS200X	0.157	1.000	0.157	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
594	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
595	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
596	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
597	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
598	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
599	CFRHS200X	CFRHS200X	0.152	1.000	0.152	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
600	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
601	CFRHS200X	CFRHS200X	0.154	1.000	0.154	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
602	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
603	CFRHS200X	CFRHS200X	0.155	1.000	0.155	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
604	CFRHS200X	CFRHS200X	0.092	1.000	0.092	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
605	CFRHS200X	CFRHS200X	0.159	1.000	0.159	EC-5.5.4	103	59.242	3.57E+3	3.57E+3	5.78E+3
606	CFRHS200X	CFRHS200X	0.091	1.000	0.091	EC-eq(5.36)	103	59.242	3.57E+3	3.57E+3	5.78E+3
607	CFRHS200X	CFRHS200X	0.006	1.000	0.006	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
608	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
609	CFRHS200X	CFRHS200X	0.004	1.000	0.004	EC-5.4.5.1	103	59.242	3.57E+3	3.57E+3	5.78E+3
611	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
613	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
615	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
617	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
619	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
621	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
622	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
623	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
625	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
627	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
629	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
631	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
633	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
635	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
636	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
637	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
638	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
640	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
642	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
644	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
646	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
648	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
650	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
652	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
654	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
656	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
658	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
660	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
662	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
663	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
664	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
665	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
667	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
669	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
671	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
673	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
675	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
677	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
678	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
679	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
681	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
683	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
685	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
687	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
689	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
691	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
692	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
693	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
695	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
697	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
699	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
701	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
703	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
705	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
706	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
707	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
709	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
711	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
713	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
715	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
717	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
719	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
720	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
721	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
723	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
725	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
727	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
729	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
731	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
733	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
734	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
735	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
737	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
739	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
741	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
743	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
745	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
747	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
748	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
749	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
751	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
753	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
755	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
757	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
759	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
761	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
762	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
763	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
765	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
767	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
769	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
771	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
773	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
775	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
776	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
777	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
779	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
781	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
783	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
785	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
787	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
789	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
790	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
791	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
793	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
795	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
797	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
799	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
801	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
803	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
804	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
805	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
807	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
809	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
811	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
813	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
815	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
817	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
818	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
819	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
821	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
823	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
825	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
827	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
829	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
831	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
832	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
833	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
835	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
837	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
839	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
841	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
843	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
845	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
846	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
847	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
849	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
851	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
853	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
855	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
857	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
859	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
860	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
861	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
862	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
875	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
876	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
877	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
878	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
879	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
880	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
881	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
882	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
883	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
884	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
885	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
886	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
887	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
888	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
889	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
890	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
903	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
904	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
905	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
906	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
907	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
908	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
909	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
910	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
911	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
912	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
913	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
914	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
915	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
916	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
917	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
918	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
931	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
932	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
933	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
934	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
935	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
936	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
937	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
938	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
939	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
940	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
941	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
942	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
943	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
944	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
945	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
946	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
959	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
960	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
961	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
962	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
963	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
964	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
965	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
966	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
967	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
968	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
969	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
970	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
971	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
972	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
973	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
974	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
987	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
988	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
989	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
990	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
991	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
992	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
993	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
994	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
995	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
996	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
997	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
998	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
999	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1000	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1001	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1002	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1015	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1016	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1017	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1018	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1019	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1020	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1021	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1022	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1023	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1024	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1025	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1026	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1027	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1028	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1029	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1030	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1043	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1044	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1045	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1046	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1047	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1048	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1049	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1050	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1051	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1052	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1053	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1054	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1055	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1056	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1057	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1058	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1071	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1072	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1073	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1074	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1075	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1076	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1077	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1078	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1079	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
1080	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1081	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1082	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1083	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1084	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1085	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1086	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1099	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1100	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1101	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1102	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1103	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1104	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1105	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1106	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1107	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1108	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1109	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1110	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1111	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1112	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1113	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1114	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1127	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1128	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1129	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1130	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1131	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1132	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1133	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1134	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1135	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1136	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1137	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1138	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1139	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1140	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1141	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1142	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1155	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1156	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1157	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1158	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1159	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1160	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1161	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1162	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1163	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1164	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3

Utilization Ratio Cont...

Beam	Analysis Property	Design Property	Actual Ratio	Allowable Ratio	Ratio (Act./Allow.)	Clause	L/C	Ax (cm^2)	Iz (cm^4)	Iy (cm^4)	Ix (cm^4)
1165	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1166	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1167	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1168	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1169	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1170	CFRHS300X	CFRHS300X	0.224	1.000	0.224	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1183	CFRHS300X	CFRHS300X	0.043	1.000	0.043	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1184	CFRHS300X	CFRHS300X	0.229	1.000	0.229	EC-5.4.4 (C)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1185	CFRHS300X	CFRHS300X	0.167	1.000	0.167	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1186	CFRHS300X	CFRHS300X	0.165	1.000	0.165	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1187	CFRHS300X	CFRHS300X	0.100	1.000	0.100	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1188	CFRHS300X	CFRHS300X	0.098	1.000	0.098	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1189	CFRHS300X	CFRHS300X	0.035	1.000	0.035	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1190	CFRHS300X	CFRHS300X	0.034	1.000	0.034	EC-5.5.4	103	112.566	15.5E+3	15.5E+3	24.8E+3
1191	CFRHS300X	CFRHS300X	0.007	1.000	0.007	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1192	CFRHS300X	CFRHS300X	0.006	1.000	0.006	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1193	CFRHS300X	CFRHS300X	0.018	1.000	0.018	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1194	CFRHS300X	CFRHS300X	0.020	1.000	0.020	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1195	CFRHS300X	CFRHS300X	0.033	1.000	0.033	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1196	CFRHS300X	CFRHS300X	0.030	1.000	0.030	EC-eq(5.36)	103	112.566	15.5E+3	15.5E+3	24.8E+3
1197	CFRHS300X	CFRHS300X	0.042	1.000	0.042	EC-5.4.3 (T)	103	112.566	15.5E+3	15.5E+3	24.8E+3

Beam Maximum Relative Displacements

Distances to maxima are given from beam end A.

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
3	3	3.905	104:SLS2, ID:	-0.132	1.953	0.004	3.580	0.132	1.953	> 10000
4	5	3.905	104:SLS2, ID:	-0.163	1.953	0.006	2.603	0.165	1.953	> 10000
5	6	3.905	104:SLS2, ID:	-0.147	1.953	0.005	2.929	0.147	1.953	> 10000
6	7	3.905	104:SLS2, ID:	-0.147	1.953	0.005	2.929	0.148	1.953	> 10000
7	8	3.905	104:SLS2, ID:	-0.147	1.953	-0.004	2.603	0.147	1.953	> 10000
8	9	3.905	104:SLS2, ID:	-0.148	1.953	-0.007	3.254	0.148	1.953	> 10000
9	10	3.905	104:SLS2, ID:	-0.132	1.953	-0.004	3.580	0.132	1.953	> 10000
10	11	3.905	104:SLS2, ID:	-0.131	2.278	-0.004	3.580	0.132	1.953	> 10000
11	12	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	0.932	2.971	1.863	1254
12	13	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
13	14	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	0.621	2.971	1.863	1254
14	15	2.832	104:SLS2, ID:	-1.078	1.416	0.025	1.416	1.079	1.416	2626
15	17	3.726	104:SLS2, ID:	-2.971	1.863	0.025	0.932	2.971	1.863	1254
16	19	2.832	104:SLS2, ID:	-1.079	1.416	0.025	1.416	1.079	1.416	2625
17	20	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	3.105	2.971	1.863	1254
18	21	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
19	23	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	0.932	2.971	1.863	1254
20	25	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
21	26	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	3.105	2.971	1.863	1254
22	27	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
23	29	3.726	104:SLS2, ID:	-2.970	1.863	-0.025	0.932	2.970	1.863	1254
24	31	2.832	104:SLS2, ID:	-1.079	1.416	-0.025	1.416	1.079	1.416	2624
25	32	3.726	104:SLS2, ID:	-2.970	1.863	-0.025	1.863	2.970	1.863	1254
26	33	2.832	104:SLS2, ID:	-1.079	1.416	-0.025	1.416	1.079	1.416	2624
27	35	3.726	104:SLS2, ID:	-0.152	1.863	-0.025	0.932	0.152	1.863	> 10000
28	36	2.832	104:SLS2, ID:	-0.051	1.416	-0.025	1.416	0.057	1.416	> 10000
29	4	3.000	104:SLS2, ID:	-0.064	1.500	0.004	1.500	0.068	1.500	> 10000
32	39	3.905	104:SLS2, ID:	-0.151	1.953	0.011	0.651	0.152	1.953	> 10000
33	41	3.905	104:SLS2, ID:	-0.151	1.953	0.011	0.651	0.152	1.953	> 10000
34	42	3.905	104:SLS2, ID:	-0.155	2.278	0.018	3.580	0.158	2.278	> 10000
35	43	3.905	104:SLS2, ID:	-0.155	2.278	0.017	3.580	0.158	2.278	> 10000
36	44	3.905	104:SLS2, ID:	-0.141	1.627	-0.009	2.603	0.141	1.627	> 10000
37	45	3.905	104:SLS2, ID:	-0.142	1.627	-0.009	1.302	0.142	1.627	> 10000
38	46	3.905	104:SLS2, ID:	-0.143	2.278	-0.014	2.929	0.144	2.278	> 10000
39	47	3.905	104:SLS2, ID:	-0.151	1.953	-0.014	2.929	0.152	1.953	> 10000
40	1	3.726	104:SLS2, ID:	-2.971	1.863	0.000	3.416	2.971	1.863	1254
41	3	2.832	104:SLS2, ID:	-1.078	1.416	-0.024	2.124	1.078	1.416	2626
42	5	3.726	104:SLS2, ID:	-2.971	1.863	-0.024	1.863	2.971	1.863	1254
43	16	2.832	104:SLS2, ID:	-1.078	1.416	0.024	0.708	1.078	1.416	2626
44	18	3.726	104:SLS2, ID:	-2.971	1.863	0.000	3.105	2.971	1.863	1254
45	6	2.832	104:SLS2, ID:	-1.079	1.416	0.024	2.124	1.079	1.416	2625
46	7	3.726	104:SLS2, ID:	-2.971	1.863	-0.024	1.863	2.971	1.863	1254
47	22	2.832	104:SLS2, ID:	-1.078	1.416	0.024	2.124	1.078	1.416	2626
48	24	3.726	104:SLS2, ID:	-2.971	1.863	0.000	3.416	2.971	1.863	1254
49	8	2.832	104:SLS2, ID:	-1.078	1.416	-0.024	0.708	1.078	1.416	2626
50	9	3.726	104:SLS2, ID:	-2.971	1.863	0.024	1.863	2.971	1.863	1254
51	28	2.832	104:SLS2, ID:	-1.078	1.416	-0.024	0.708	1.078	1.416	2626
52	30	3.726	104:SLS2, ID:	-2.970	1.863	0.000	3.416	2.970	1.863	1254

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
53	10	2.832	104:SLS2, ID:	-1.079	1.416	-0.024	0.708	1.079	1.416	2624
54	11	3.726	104:SLS2, ID:	-2.970	1.863	0.024	1.863	2.970	1.863	1254
55	34	2.832	104:SLS2, ID:	-1.079	1.416	-0.024	0.708	1.079	1.416	2624
56	2	3.726	104:SLS2, ID:	-0.152	1.863	0.000	3.416	0.152	1.863	> 10000
57	4	2.832	104:SLS2, ID:	-0.051	1.416	-0.024	2.124	0.051	1.416	> 10000
58	40	3.000	104:SLS2, ID:	-0.064	1.500	0.011	0.500	0.068	1.500	> 10000
61	57	3.905	104:SLS2, ID:	-0.145	1.953	-0.017	3.254	0.145	1.953	> 10000
62	59	3.905	104:SLS2, ID:	-0.145	1.953	0.017	1.302	0.145	1.953	> 10000
63	60	3.905	104:SLS2, ID:	-0.156	1.953	0.024	2.278	0.159	1.953	> 10000
64	61	3.905	104:SLS2, ID:	-0.133	1.953	0.022	3.580	0.134	1.953	> 10000
65	62	3.905	104:SLS2, ID:	-0.133	1.953	-0.023	3.254	0.134	1.953	> 10000
66	63	3.905	104:SLS2, ID:	-0.134	1.953	-0.023	3.254	0.135	1.953	> 10000
67	64	3.905	104:SLS2, ID:	-0.145	1.953	-0.017	0.651	0.145	1.953	> 10000
68	65	3.905	104:SLS2, ID:	-0.145	1.953	-0.017	2.603	0.145	1.953	> 10000
69	37	3.726	104:SLS2, ID:	-2.971	1.863	-0.020	1.863	2.971	1.863	1254
70	39	2.832	104:SLS2, ID:	-1.078	1.416	0.014	1.180	1.078	1.416	2626
71	41	3.726	104:SLS2, ID:	-2.971	1.863	-0.024	2.174	2.971	1.863	1254
72	48	2.832	104:SLS2, ID:	-1.078	1.416	0.014	1.888	1.078	1.416	2626
73	49	3.726	104:SLS2, ID:	-2.971	1.863	0.041	2.174	2.971	1.863	1254
74	42	2.832	104:SLS2, ID:	-1.079	1.416	-0.014	0.236	1.079	1.416	2625
75	43	3.726	104:SLS2, ID:	-2.971	1.863	-0.021	1.863	2.971	1.863	1254
76	50	2.832	104:SLS2, ID:	-1.078	1.416	-0.014	0.944	1.078	1.416	2626
77	51	3.726	104:SLS2, ID:	-2.971	1.863	0.020	1.863	2.971	1.863	1254
78	44	2.832	104:SLS2, ID:	-1.078	1.416	0.014	1.888	1.078	1.416	2626
79	45	3.726	104:SLS2, ID:	-2.971	1.863	0.021	1.863	2.971	1.863	1254
80	52	2.832	104:SLS2, ID:	-1.078	1.416	0.014	0.472	1.078	1.416	2626
81	53	3.726	104:SLS2, ID:	-2.970	1.863	-0.034	1.553	2.970	1.863	1254
82	46	2.832	104:SLS2, ID:	-1.079	1.416	-0.014	0.236	1.079	1.416	2624
83	47	3.726	104:SLS2, ID:	-2.970	1.863	0.024	1.553	2.970	1.863	1254
84	54	2.832	104:SLS2, ID:	-1.079	1.416	0.014	0.472	1.079	1.416	2624
85	38	3.726	104:SLS2, ID:	-0.152	1.863	-0.020	1.863	0.154	1.863	> 10000
86	40	2.832	104:SLS2, ID:	-0.051	1.416	0.014	1.180	0.052	1.180	> 10000
87	58	3.000	104:SLS2, ID:	-0.064	1.500	-0.000	0.750	0.064	1.500	> 10000
90	75	3.905	104:SLS2, ID:	-0.142	1.953	-0.028	2.929	0.142	1.953	> 10000
91	77	3.905	104:SLS2, ID:	-0.140	1.627	-0.028	3.580	0.140	1.627	> 10000
92	78	3.905	104:SLS2, ID:	-0.146	2.278	0.027	2.278	0.149	2.278	> 10000
93	79	3.905	104:SLS2, ID:	-0.143	1.953	0.023	3.254	0.143	1.953	> 10000
94	80	3.905	104:SLS2, ID:	-0.143	1.953	-0.020	0.651	0.143	1.953	> 10000
95	81	3.905	104:SLS2, ID:	-0.143	1.953	-0.032	3.580	0.143	1.953	> 10000
96	82	3.905	104:SLS2, ID:	-0.150	1.953	0.026	2.929	0.153	1.953	> 10000
97	83	3.905	104:SLS2, ID:	-0.146	1.627	0.027	2.278	0.149	1.627	> 10000
98	55	3.726	104:SLS2, ID:	-2.971	1.863	-0.015	0.311	2.971	1.863	1254
99	57	2.832	104:SLS2, ID:	-1.078	1.416	-0.015	1.416	1.079	1.416	2626
100	59	3.726	104:SLS2, ID:	-2.971	1.863	-0.016	3.416	2.971	1.863	1254
101	66	2.832	104:SLS2, ID:	-1.078	1.416	0.015	1.416	1.079	1.416	2626
102	67	3.726	104:SLS2, ID:	-2.971	1.863	-0.016	3.416	2.971	1.863	1254
103	60	2.832	104:SLS2, ID:	-1.079	1.416	0.000	1.416	1.079	1.416	2625
104	61	3.726	104:SLS2, ID:	-2.971	1.863	-0.016	3.416	2.971	1.863	1254
105	68	2.832	104:SLS2, ID:	-1.078	1.416	0.015	1.416	1.079	1.416	2626

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
106	69	3.726	104:SLS2, ID:	-2.971	1.863	0.016	3.416	2.971	1.863	1254
107	62	2.832	104:SLS2, ID:	-1.078	1.416	-0.000	2.360	1.078	1.416	2626
108	63	3.726	104:SLS2, ID:	-2.971	1.863	0.016	3.416	2.971	1.863	1254
109	70	2.832	104:SLS2, ID:	-1.078	1.416	-0.016	1.416	1.079	1.416	2626
110	71	3.726	104:SLS2, ID:	-2.970	1.863	0.016	2.174	2.970	1.863	1254
111	64	2.832	104:SLS2, ID:	-1.079	1.416	-0.000	1.652	1.079	1.416	2624
112	65	3.726	104:SLS2, ID:	-2.970	1.863	0.016	0.311	2.970	1.863	1254
113	72	2.832	104:SLS2, ID:	-1.079	1.416	-0.016	1.416	1.079	1.416	2624
114	56	3.726	104:SLS2, ID:	-0.152	1.863	-0.015	0.311	0.152	1.863	> 10000
115	58	2.832	104:SLS2, ID:	-0.051	1.416	-0.015	1.416	0.057	1.416	> 10000
116	76	3.000	104:SLS2, ID:	-0.064	1.500	0.021	1.500	0.068	1.500	> 10000
119	93	3.905	104:SLS2, ID:	-0.142	1.953	0.031	2.603	0.142	1.953	> 10000
120	95	3.905	104:SLS2, ID:	-0.142	1.953	0.031	2.603	0.142	1.953	> 10000
121	96	3.905	104:SLS2, ID:	-0.142	1.953	0.022	2.929	0.142	1.953	> 10000
122	97	3.905	104:SLS2, ID:	-0.142	1.953	0.022	2.929	0.142	1.953	> 10000
123	98	3.905	104:SLS2, ID:	-0.142	1.953	-0.026	2.929	0.142	1.953	> 10000
124	99	3.905	104:SLS2, ID:	-0.143	1.953	-0.026	2.929	0.143	1.953	> 10000
125	100	3.905	104:SLS2, ID:	-0.142	1.953	-0.034	3.254	0.142	1.953	> 10000
126	101	3.905	104:SLS2, ID:	-0.141	1.953	-0.034	3.254	0.141	1.953	> 10000
127	73	3.726	104:SLS2, ID:	-2.971	1.863	0.006	0.311	2.971	1.863	1254
128	75	2.832	104:SLS2, ID:	-1.078	1.416	0.000	1.416	1.078	1.416	2626
129	77	3.726	104:SLS2, ID:	-2.971	1.863	0.014	2.795	2.971	1.863	1254
130	84	2.832	104:SLS2, ID:	-1.078	1.416	0.001	2.360	1.078	1.416	2626
131	85	3.726	104:SLS2, ID:	-2.971	1.863	-0.006	2.484	2.971	1.863	1254
132	78	2.832	104:SLS2, ID:	-1.079	1.416	0.009	1.416	1.079	1.416	2625
133	79	3.726	104:SLS2, ID:	-2.971	1.863	0.007	3.105	2.971	1.863	1254
134	86	2.832	104:SLS2, ID:	-1.078	1.416	-0.000	2.596	1.078	1.416	2626
135	87	3.726	104:SLS2, ID:	-2.971	1.863	0.006	0.311	2.971	1.863	1254
136	80	2.832	104:SLS2, ID:	-1.078	1.416	0.009	1.416	1.079	1.416	2626
137	81	3.726	104:SLS2, ID:	-2.971	1.863	-0.006	2.484	2.971	1.863	1254
138	88	2.832	104:SLS2, ID:	-1.078	1.416	0.000	0.236	1.078	1.416	2626
139	89	3.726	104:SLS2, ID:	-2.970	1.863	-0.006	2.484	2.970	1.863	1254
140	82	2.832	104:SLS2, ID:	-1.079	1.416	-0.009	1.416	1.079	1.416	2624
141	83	3.726	104:SLS2, ID:	-2.970	1.863	-0.014	1.553	2.970	1.863	1254
142	90	2.832	104:SLS2, ID:	-1.079	1.416	0.000	0.236	1.079	1.416	2624
143	74	3.726	104:SLS2, ID:	-0.152	1.863	0.006	0.311	0.152	1.863	> 10000
144	76	2.832	104:SLS2, ID:	-0.051	1.416	0.000	1.416	0.051	1.416	> 10000
145	94	3.000	104:SLS2, ID:	-0.064	1.500	0.024	0.500	0.068	1.500	> 10000
148	111	3.905	104:SLS2, ID:	-0.142	1.953	-0.021	0.651	0.143	1.953	> 10000
149	113	3.905	104:SLS2, ID:	-0.142	1.953	-0.021	3.254	0.143	1.953	> 10000
150	114	3.905	104:SLS2, ID:	-0.141	1.953	-0.021	3.254	0.142	1.953	> 10000
151	115	3.905	104:SLS2, ID:	-0.142	1.953	-0.021	3.254	0.143	1.953	> 10000
152	116	3.905	104:SLS2, ID:	-0.142	1.953	-0.021	0.651	0.143	1.953	> 10000
153	117	3.905	104:SLS2, ID:	-0.142	1.953	-0.021	3.254	0.143	1.953	> 10000
154	118	3.905	104:SLS2, ID:	-0.142	1.953	0.028	3.254	0.143	1.953	> 10000
155	119	3.905	104:SLS2, ID:	-0.141	1.953	0.028	3.254	0.143	1.953	> 10000
156	91	3.726	104:SLS2, ID:	-2.971	1.863	-0.002	3.416	2.971	1.863	1254
157	93	2.832	104:SLS2, ID:	-1.078	1.416	-0.002	2.596	1.078	1.416	2626
158	95	3.726	104:SLS2, ID:	-2.971	1.863	-0.002	0.932	2.971	1.863	1254

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
159	102	2.832	104:SLS2, ID:	-1.078	1.416	0.002	0.236	1.078	1.416	2626
160	103	3.726	104:SLS2, ID:	-2.971	1.863	-0.002	2.795	2.971	1.863	1254
161	96	2.832	104:SLS2, ID:	-1.079	1.416	0.003	2.596	1.079	1.416	2625
162	97	3.726	104:SLS2, ID:	-2.971	1.863	-0.002	2.795	2.971	1.863	1254
163	104	2.832	104:SLS2, ID:	-1.078	1.416	0.002	0.236	1.078	1.416	2626
164	105	3.726	104:SLS2, ID:	-2.971	1.863	0.002	2.795	2.971	1.863	1254
165	98	2.832	104:SLS2, ID:	-1.078	1.416	0.002	1.652	1.078	1.416	2626
166	99	3.726	104:SLS2, ID:	-2.971	1.863	0.002	0.311	2.971	1.863	1254
167	106	2.832	104:SLS2, ID:	-1.078	1.416	-0.002	0.708	1.078	1.416	2626
168	107	3.726	104:SLS2, ID:	-2.970	1.863	0.002	0.311	2.970	1.863	1254
169	100	2.832	104:SLS2, ID:	-1.079	1.416	-0.002	1.180	1.079	1.416	2624
170	101	3.726	104:SLS2, ID:	-2.970	1.863	0.002	0.311	2.970	1.863	1254
171	108	2.832	104:SLS2, ID:	-1.079	1.416	-0.002	0.708	1.079	1.416	2624
172	92	3.726	104:SLS2, ID:	-0.152	1.863	-0.002	3.416	0.152	1.863	> 10000
173	94	2.832	104:SLS2, ID:	-0.051	1.416	-0.002	2.596	0.055	1.180	> 10000
174	112	3.000	104:SLS2, ID:	-0.064	1.500	-0.025	2.500	0.068	1.500	> 10000
177	129	3.905	104:SLS2, ID:	-0.145	1.953	-0.024	1.627	0.146	1.953	> 10000
178	131	3.905	104:SLS2, ID:	-0.145	1.953	-0.046	3.580	0.146	1.953	> 10000
179	132	3.905	104:SLS2, ID:	-0.144	1.953	-0.024	1.627	0.145	1.953	> 10000
180	133	3.905	104:SLS2, ID:	-0.145	1.953	-0.024	1.627	0.146	1.953	> 10000
181	134	3.905	104:SLS2, ID:	-0.145	1.953	0.022	1.627	0.146	1.953	> 10000
182	135	3.905	104:SLS2, ID:	-0.146	1.953	0.022	1.627	0.147	1.953	> 10000
183	136	3.905	104:SLS2, ID:	-0.133	1.953	0.037	2.278	0.137	1.953	> 10000
184	137	3.905	104:SLS2, ID:	-0.139	2.278	0.031	1.953	0.139	2.278	> 10000
185	109	3.726	104:SLS2, ID:	-2.971	1.863	0.005	1.863	2.971	1.863	1254
186	111	2.832	104:SLS2, ID:	-1.079	1.416	0.006	1.416	1.079	1.416	2626
187	113	3.726	104:SLS2, ID:	-2.971	1.863	0.001	2.174	2.971	1.863	1254
188	120	2.832	104:SLS2, ID:	-1.078	1.416	-0.006	1.416	1.079	1.416	2626
189	121	3.726	104:SLS2, ID:	-2.971	1.863	0.006	1.863	2.971	1.863	1254
190	114	2.832	104:SLS2, ID:	-1.079	1.416	-0.006	1.416	1.079	1.416	2625
191	115	3.726	104:SLS2, ID:	-2.971	1.863	0.001	3.416	2.971	1.863	1254
192	122	2.832	104:SLS2, ID:	-1.078	1.416	-0.006	1.416	1.079	1.416	2626
193	123	3.726	104:SLS2, ID:	-2.971	1.863	-0.006	1.863	2.971	1.863	1254
194	116	2.832	104:SLS2, ID:	-1.078	1.416	-0.006	1.416	1.079	1.416	2626
195	117	3.726	104:SLS2, ID:	-2.971	1.863	0.001	3.416	2.971	1.863	1254
196	124	2.832	104:SLS2, ID:	-1.078	1.416	0.006	1.416	1.079	1.416	2626
197	125	3.726	104:SLS2, ID:	-2.970	1.863	-0.007	2.174	2.970	1.863	1254
198	118	2.832	104:SLS2, ID:	-1.079	1.416	0.006	1.416	1.079	1.416	2624
199	119	3.726	104:SLS2, ID:	-2.970	1.863	-0.001	3.416	2.970	1.863	1254
200	126	2.832	104:SLS2, ID:	-1.079	1.416	0.006	1.416	1.079	1.416	2624
201	110	3.726	104:SLS2, ID:	-0.152	1.863	0.005	1.863	0.154	1.863	> 10000
202	112	2.832	104:SLS2, ID:	-0.051	1.416	0.006	1.416	0.057	1.416	> 10000
203	130	3.000	104:SLS2, ID:	-0.064	1.500	-0.023	0.500	0.068	1.500	> 10000
206	147	3.905	104:SLS2, ID:	-0.138	1.953	0.018	0.325	0.138	1.953	> 10000
207	149	3.905	104:SLS2, ID:	-0.138	1.953	0.018	0.325	0.138	1.953	> 10000
208	150	3.905	104:SLS2, ID:	-0.148	1.953	-0.030	3.580	0.149	1.953	> 10000
209	151	3.905	104:SLS2, ID:	-0.148	1.953	-0.023	3.254	0.149	1.953	> 10000
210	152	3.905	104:SLS2, ID:	-0.148	1.953	0.025	2.603	0.149	1.953	> 10000
211	153	3.905	104:SLS2, ID:	-0.129	1.953	0.026	2.278	0.132	1.953	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
212	154	3.905	104:SLS2, ID:	-0.138	1.953	-0.017	0.651	0.139	1.953	> 10000
213	155	3.905	104:SLS2, ID:	-0.138	1.953	-0.016	0.651	0.138	1.953	> 10000
214	127	3.726	104:SLS2, ID:	-2.971	1.863	0.009	1.553	2.971	1.863	1254
215	129	2.832	104:SLS2, ID:	-1.078	1.416	0.012	0.708	1.078	1.416	2626
216	131	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	3.105	2.971	1.863	1254
217	138	2.832	104:SLS2, ID:	-1.078	1.416	-0.013	2.596	1.078	1.416	2626
218	139	3.726	104:SLS2, ID:	-2.971	1.863	-0.009	0.311	2.971	1.863	1254
219	132	2.832	104:SLS2, ID:	-1.079	1.416	-0.013	1.652	1.079	1.416	2625
220	133	3.726	104:SLS2, ID:	-2.971	1.863	0.012	1.863	2.971	1.863	1254
221	140	2.832	104:SLS2, ID:	-1.078	1.416	-0.013	2.596	1.078	1.416	2626
222	141	3.726	104:SLS2, ID:	-2.971	1.863	0.009	1.553	2.971	1.863	1254
223	134	2.832	104:SLS2, ID:	-1.078	1.416	-0.012	0.236	1.078	1.416	2626
224	135	3.726	104:SLS2, ID:	-2.971	1.863	-0.015	3.416	2.971	1.863	1254
225	142	2.832	104:SLS2, ID:	-1.078	1.416	0.012	0.708	1.078	1.416	2626
226	143	3.726	104:SLS2, ID:	-2.970	1.863	-0.008	1.242	2.970	1.863	1254
227	136	2.832	104:SLS2, ID:	-1.079	1.416	0.013	2.124	1.079	1.416	2624
228	137	3.726	104:SLS2, ID:	-2.970	1.863	0.017	3.105	2.970	1.863	1254
229	144	2.832	104:SLS2, ID:	-1.079	1.416	0.012	0.708	1.079	1.416	2624
230	128	3.726	104:SLS2, ID:	-0.152	1.863	0.009	1.553	0.152	1.863	> 10000
231	130	2.832	104:SLS2, ID:	-0.051	1.416	0.012	0.708	0.055	1.180	> 10000
232	148	3.000	104:SLS2, ID:	-0.064	1.500	-0.019	1.500	0.068	1.500	> 10000
235	165	3.905	104:SLS2, ID:	-0.154	1.953	-0.014	1.953	0.155	1.953	> 10000
236	167	3.905	104:SLS2, ID:	-0.154	1.953	-0.014	1.953	0.155	1.953	> 10000
237	168	3.905	104:SLS2, ID:	-0.144	2.278	-0.021	3.254	0.144	2.278	> 10000
238	169	3.905	104:SLS2, ID:	-0.144	2.278	-0.021	3.254	0.145	2.278	> 10000
239	170	3.905	104:SLS2, ID:	-0.144	2.278	0.018	3.580	0.144	2.278	> 10000
240	171	3.905	104:SLS2, ID:	-0.142	1.953	0.023	2.929	0.142	1.953	> 10000
241	172	3.905	104:SLS2, ID:	-0.142	1.627	0.018	2.603	0.142	1.627	> 10000
242	173	3.905	104:SLS2, ID:	-0.142	1.627	0.014	1.953	0.142	1.627	> 10000
243	145	3.726	104:SLS2, ID:	-2.971	1.863	0.018	2.795	2.971	1.863	1254
244	147	2.832	104:SLS2, ID:	-1.078	1.416	0.018	1.416	1.079	1.416	2626
245	149	3.726	104:SLS2, ID:	-2.971	1.863	0.022	1.553	2.971	1.863	1254
246	156	2.832	104:SLS2, ID:	-1.078	1.416	-0.018	1.416	1.079	1.416	2626
247	157	3.726	104:SLS2, ID:	-2.971	1.863	-0.036	2.484	2.971	1.863	1254
248	150	2.832	104:SLS2, ID:	-1.079	1.416	-0.018	1.416	1.079	1.416	2625
249	151	3.726	104:SLS2, ID:	-2.971	1.863	0.018	1.863	2.971	1.863	1254
250	158	2.832	104:SLS2, ID:	-1.078	1.416	-0.018	1.416	1.079	1.416	2626
251	159	3.726	104:SLS2, ID:	-2.971	1.863	-0.018	0.932	2.971	1.863	1254
252	152	2.832	104:SLS2, ID:	-1.078	1.416	-0.018	1.416	1.079	1.416	2626
253	153	3.726	104:SLS2, ID:	-2.971	1.863	-0.018	1.863	2.971	1.863	1254
254	160	2.832	104:SLS2, ID:	-1.078	1.416	0.018	1.416	1.079	1.416	2626
255	161	3.726	104:SLS2, ID:	-2.970	1.863	-0.018	0.932	2.970	1.863	1254
256	154	2.832	104:SLS2, ID:	-1.079	1.416	0.018	1.416	1.079	1.416	2624
257	155	3.726	104:SLS2, ID:	-2.970	1.863	-0.024	2.484	2.970	1.863	1254
258	162	2.832	104:SLS2, ID:	-1.079	1.416	0.018	1.416	1.079	1.416	2624
259	146	3.726	104:SLS2, ID:	-0.152	1.863	0.018	2.795	0.152	1.863	> 10000
260	148	2.832	104:SLS2, ID:	-0.051	1.416	0.018	1.416	0.057	1.416	> 10000
261	166	3.000	104:SLS2, ID:	-0.064	1.500	-0.014	2.250	0.064	1.500	> 10000
264	183	3.905	104:SLS2, ID:	-0.149	1.953	-0.007	2.603	0.149	1.953	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
265	185	3.905	104:SLS2, ID:	-0.148	1.627	-0.007	2.929	0.149	1.627	> 10000
266	186	3.905	104:SLS2, ID:	-0.149	1.953	-0.007	2.603	0.149	1.953	> 10000
267	187	3.905	104:SLS2, ID:	-0.149	1.953	-0.007	2.603	0.149	1.953	> 10000
268	188	3.905	104:SLS2, ID:	-0.149	1.953	0.011	2.929	0.149	1.953	> 10000
269	189	3.905	104:SLS2, ID:	-0.131	1.627	0.014	3.580	0.132	1.627	> 10000
270	190	3.905	104:SLS2, ID:	-0.143	1.627	0.009	2.278	0.144	1.627	> 10000
271	191	3.905	104:SLS2, ID:	-0.148	1.953	0.008	0.651	0.149	1.953	> 10000
272	163	3.726	104:SLS2, ID:	-2.971	1.863	0.022	1.863	2.971	1.863	1254
273	165	2.832	104:SLS2, ID:	-1.079	1.416	0.022	1.416	1.079	1.416	2626
274	167	3.726	104:SLS2, ID:	-2.971	1.863	0.026	3.416	2.971	1.863	1254
275	174	2.832	104:SLS2, ID:	-1.078	1.416	-0.022	1.416	1.079	1.416	2626
276	175	3.726	104:SLS2, ID:	-2.971	1.863	0.022	1.863	2.971	1.863	1254
277	168	2.832	104:SLS2, ID:	-1.079	1.416	-0.022	2.124	1.079	1.416	2625
278	169	3.726	104:SLS2, ID:	-2.971	1.863	0.022	1.863	2.971	1.863	1254
279	176	2.832	104:SLS2, ID:	-1.078	1.416	-0.022	1.416	1.079	1.416	2626
280	177	3.726	104:SLS2, ID:	-2.971	1.863	-0.022	1.863	2.971	1.863	1254
281	170	2.832	104:SLS2, ID:	-1.078	1.416	-0.022	2.124	1.078	1.416	2626
282	171	3.726	104:SLS2, ID:	-2.971	1.863	-0.022	1.863	2.971	1.863	1254
283	178	2.832	104:SLS2, ID:	-1.078	1.416	0.022	1.416	1.079	1.416	2626
284	179	3.726	104:SLS2, ID:	-2.970	1.863	0.045	3.105	2.970	1.863	1254
285	172	2.832	104:SLS2, ID:	-1.079	1.416	0.022	2.124	1.079	1.416	2624
286	173	3.726	104:SLS2, ID:	-2.970	1.863	-0.022	1.863	2.970	1.863	1254
287	180	2.832	104:SLS2, ID:	-1.079	1.416	0.022	1.416	1.079	1.416	2624
288	164	3.726	104:SLS2, ID:	-0.152	1.863	0.022	1.863	0.154	1.863	> 10000
289	166	2.832	104:SLS2, ID:	-0.051	1.416	0.022	1.416	0.057	1.416	> 10000
290	184	3.000	104:SLS2, ID:	-0.064	1.500	-0.007	0.250	0.067	1.250	> 10000
293	201	3.905	104:SLS2, ID:	-0.155	1.627	0.000	3.254	0.156	1.627	> 10000
294	203	3.905	104:SLS2, ID:	-0.162	1.953	0.000	1.953	0.164	1.953	> 10000
295	204	3.905	104:SLS2, ID:	-0.154	1.627	0.000	3.580	0.156	1.627	> 10000
296	205	3.905	104:SLS2, ID:	-0.154	1.627	0.000	3.580	0.156	1.627	> 10000
297	206	3.905	104:SLS2, ID:	-0.147	1.953	-0.000	1.627	0.147	1.953	> 10000
298	207	3.905	104:SLS2, ID:	-0.147	1.953	-0.000	0.651	0.148	1.953	> 10000
299	208	3.905	104:SLS2, ID:	-0.136	1.627	-0.000	2.603	0.136	1.627	> 10000
300	209	3.905	104:SLS2, ID:	-0.146	1.953	-0.000	1.627	0.146	1.953	> 10000
301	181	3.726	104:SLS2, ID:	-2.971	1.863	0.025	0.621	2.971	1.863	1254
302	183	2.832	104:SLS2, ID:	-1.078	1.416	0.025	1.416	1.079	1.416	2626
303	185	3.726	104:SLS2, ID:	-2.971	1.863	0.025	0.621	2.971	1.863	1254
304	192	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
305	193	3.726	104:SLS2, ID:	-2.971	1.863	0.025	0.621	2.971	1.863	1254
306	186	2.832	104:SLS2, ID:	-1.079	1.416	-0.025	1.416	1.079	1.416	2625
307	187	3.726	104:SLS2, ID:	-2.971	1.863	0.025	3.105	2.971	1.863	1254
308	194	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
309	195	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	3.105	2.971	1.863	1254
310	188	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
311	189	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	0.621	2.971	1.863	1254
312	196	2.832	104:SLS2, ID:	-1.078	1.416	0.025	1.416	1.079	1.416	2626
313	197	3.726	104:SLS2, ID:	-2.970	1.863	-0.025	3.105	2.970	1.863	1254
314	190	2.832	104:SLS2, ID:	-1.079	1.416	0.025	1.416	1.079	1.416	2624
315	191	3.726	104:SLS2, ID:	-2.970	1.863	-0.025	0.621	2.970	1.863	1254

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
316	198	2.832	104:SLS2, ID:	-1.079	1.416	0.025	1.416	1.079	1.416	2624
317	182	3.726	104:SLS2, ID:	-0.152	1.863	0.025	0.621	0.154	1.863	> 10000
318	184	2.832	104:SLS2, ID:	-0.051	1.416	0.025	1.416	0.057	1.416	> 10000
319	202	3.000	104:SLS2, ID:	-0.064	1.500	0.000	1.250	0.064	1.750	> 10000
322	219	3.905	104:SLS2, ID:	-0.149	1.953	0.007	2.603	0.149	1.953	> 10000
323	221	3.905	104:SLS2, ID:	-0.149	1.953	0.007	1.302	0.149	1.953	> 10000
324	222	3.905	104:SLS2, ID:	-0.164	1.953	0.014	3.580	0.167	1.953	> 10000
325	223	3.905	104:SLS2, ID:	-0.148	2.278	0.008	0.976	0.149	2.278	> 10000
326	224	3.905	104:SLS2, ID:	-0.143	1.627	-0.009	2.278	0.144	1.627	> 10000
327	225	3.905	104:SLS2, ID:	-0.144	1.627	-0.009	2.278	0.144	1.627	> 10000
328	226	3.905	104:SLS2, ID:	-0.149	1.953	-0.008	0.651	0.149	1.953	> 10000
329	227	3.905	104:SLS2, ID:	-0.149	1.953	-0.008	0.651	0.149	1.953	> 10000
330	199	3.726	104:SLS2, ID:	-2.971	1.863	-0.000	2.484	2.971	1.863	1254
331	201	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
332	203	3.726	104:SLS2, ID:	-2.971	1.863	-0.024	1.863	2.971	1.863	1254
333	210	2.832	104:SLS2, ID:	-1.078	1.416	0.025	1.416	1.079	1.416	2626
334	211	3.726	104:SLS2, ID:	-2.971	1.863	-0.000	2.795	2.971	1.863	1254
335	204	2.832	104:SLS2, ID:	-1.079	1.416	0.000	2.596	1.079	1.416	2625
336	205	3.726	104:SLS2, ID:	-2.971	1.863	-0.025	1.863	2.971	1.863	1254
337	212	2.832	104:SLS2, ID:	-1.078	1.416	0.025	1.416	1.079	1.416	2626
338	213	3.726	104:SLS2, ID:	-2.971	1.863	-0.000	3.416	2.971	1.863	1254
339	206	2.832	104:SLS2, ID:	-1.078	1.416	-0.000	0.944	1.078	1.416	2626
340	207	3.726	104:SLS2, ID:	-2.971	1.863	0.025	1.863	2.971	1.863	1254
341	214	2.832	104:SLS2, ID:	-1.078	1.416	-0.025	1.416	1.079	1.416	2626
342	215	3.726	104:SLS2, ID:	-2.970	1.863	0.000	2.484	2.970	1.863	1254
343	208	2.832	104:SLS2, ID:	-1.079	1.416	0.000	1.888	1.079	1.416	2624
344	209	3.726	104:SLS2, ID:	-2.970	1.863	0.025	1.863	2.970	1.863	1254
345	216	2.832	104:SLS2, ID:	-1.079	1.416	-0.025	1.416	1.079	1.416	2624
346	200	3.726	104:SLS2, ID:	-0.152	1.863	-0.000	2.484	0.152	1.863	> 10000
347	202	2.832	104:SLS2, ID:	-0.051	1.416	-0.025	1.416	0.057	1.416	> 10000
348	220	3.000	104:SLS2, ID:	-0.064	1.500	0.007	1.500	0.068	1.500	> 10000
351	237	3.905	104:SLS2, ID:	-0.154	1.953	0.014	1.953	0.155	1.953	> 10000
352	239	3.905	104:SLS2, ID:	-0.154	1.953	0.016	3.254	0.155	1.953	> 10000
353	240	3.905	104:SLS2, ID:	-0.153	1.627	0.019	2.929	0.155	1.627	> 10000
354	241	3.905	104:SLS2, ID:	-0.153	1.627	0.019	2.929	0.155	1.627	> 10000
355	242	3.905	104:SLS2, ID:	-0.141	1.953	-0.017	3.254	0.141	1.953	> 10000
356	243	3.905	104:SLS2, ID:	-0.142	1.953	-0.023	3.580	0.142	1.953	> 10000
357	244	3.905	104:SLS2, ID:	-0.138	2.278	-0.016	2.929	0.138	2.278	> 10000
358	245	3.905	104:SLS2, ID:	-0.138	1.627	-0.016	2.929	0.138	1.627	> 10000
359	217	3.726	104:SLS2, ID:	-2.971	1.863	-0.022	3.105	2.971	1.863	1254
360	219	2.832	104:SLS2, ID:	-1.078	1.416	0.000	1.652	1.078	1.416	2626
361	221	3.726	104:SLS2, ID:	-2.971	1.863	-0.022	2.795	2.971	1.863	1254
362	228	2.832	104:SLS2, ID:	-1.078	1.416	0.000	2.360	1.078	1.416	2626
363	229	3.726	104:SLS2, ID:	-2.971	1.863	-0.022	0.621	2.971	1.863	1254
364	222	2.832	104:SLS2, ID:	-1.079	1.416	0.000	1.888	1.079	1.416	2625
365	223	3.726	104:SLS2, ID:	-2.971	1.863	-0.022	2.795	2.971	1.863	1254
366	230	2.832	104:SLS2, ID:	-1.078	1.416	-0.000	1.888	1.078	1.416	2626
367	231	3.726	104:SLS2, ID:	-2.971	1.863	0.022	0.621	2.971	1.863	1254
368	224	2.832	104:SLS2, ID:	-1.078	1.416	0.000	2.596	1.078	1.416	2626

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
369	225	3.726	104:SLS2, ID:	-2.971	1.863	0.023	2.795	2.971	1.863	1254
370	232	2.832	104:SLS2, ID:	-1.078	1.416	0.000	0.708	1.078	1.416	2626
371	233	3.726	104:SLS2, ID:	-2.970	1.863	-0.045	2.795	2.970	1.863	1254
372	226	2.832	104:SLS2, ID:	-1.079	1.416	-0.000	2.124	1.079	1.416	2624
373	227	3.726	104:SLS2, ID:	-2.970	1.863	0.022	0.932	2.970	1.863	1254
374	234	2.832	104:SLS2, ID:	-1.079	1.416	0.000	0.708	1.079	1.416	2624
375	218	3.726	104:SLS2, ID:	-0.152	1.863	-0.022	3.105	0.154	1.863	> 10000
376	220	2.832	104:SLS2, ID:	-0.051	1.416	0.000	1.652	0.051	1.416	> 10000
377	238	3.000	104:SLS2, ID:	-0.064	1.500	-0.010	2.750	0.064	1.250	> 10000
380	255	3.905	104:SLS2, ID:	-0.148	1.953	-0.020	2.278	0.149	1.953	> 10000
381	257	3.905	104:SLS2, ID:	-0.138	1.953	-0.018	3.580	0.138	1.953	> 10000
382	258	3.905	104:SLS2, ID:	-0.149	2.278	0.025	2.278	0.152	2.278	> 10000
383	259	3.905	104:SLS2, ID:	-0.148	1.953	0.018	3.580	0.149	1.953	> 10000
384	260	3.905	104:SLS2, ID:	-0.148	1.953	-0.022	2.929	0.149	1.953	> 10000
385	261	3.905	104:SLS2, ID:	-0.140	1.627	-0.025	1.953	0.140	1.627	> 10000
386	262	3.905	104:SLS2, ID:	-0.141	2.278	-0.017	1.627	0.142	2.278	> 10000
387	263	3.905	104:SLS2, ID:	-0.148	1.953	0.017	3.580	0.149	1.953	> 10000
388	235	3.726	104:SLS2, ID:	-2.971	1.863	-0.018	3.105	2.971	1.863	1254
389	237	2.832	104:SLS2, ID:	-1.078	1.416	-0.018	2.124	1.078	1.416	2626
390	239	3.726	104:SLS2, ID:	-2.971	1.863	-0.019	3.105	2.971	1.863	1254
391	246	2.832	104:SLS2, ID:	-1.078	1.416	0.018	2.596	1.078	1.416	2626
392	247	3.726	104:SLS2, ID:	-2.971	1.863	0.036	2.795	2.971	1.863	1254
393	240	2.832	104:SLS2, ID:	-1.078	1.416	0.018	1.416	1.079	1.416	2626
394	241	3.726	104:SLS2, ID:	-2.971	1.863	-0.019	3.105	2.971	1.863	1254
395	248	2.832	104:SLS2, ID:	-1.078	1.416	0.018	2.596	1.078	1.416	2626
396	249	3.726	104:SLS2, ID:	-2.971	1.863	0.019	3.105	2.971	1.863	1254
397	242	2.832	104:SLS2, ID:	-1.078	1.416	0.018	1.416	1.079	1.416	2626
398	243	3.726	104:SLS2, ID:	-2.971	1.863	0.018	1.863	2.971	1.863	1254
399	250	2.832	104:SLS2, ID:	-1.078	1.416	-0.018	2.124	1.078	1.416	2626
400	251	3.726	104:SLS2, ID:	-2.970	1.863	0.018	0.621	2.970	1.863	1254
401	244	2.832	104:SLS2, ID:	-1.079	1.416	-0.018	1.416	1.079	1.416	2624
402	245	3.726	104:SLS2, ID:	-2.970	1.863	0.027	3.416	2.970	1.863	1254
403	252	2.832	104:SLS2, ID:	-1.079	1.416	-0.018	2.124	1.079	1.416	2624
404	236	3.726	104:SLS2, ID:	-0.152	1.863	-0.018	3.105	0.154	1.863	> 10000
405	238	2.832	104:SLS2, ID:	-0.051	1.416	-0.018	2.124	0.055	1.180	> 10000
406	256	3.000	104:SLS2, ID:	-0.064	1.500	0.019	1.500	0.068	1.500	> 10000
409	273	3.905	104:SLS2, ID:	-0.145	1.953	0.038	3.580	0.146	1.953	> 10000
410	275	3.905	104:SLS2, ID:	-0.139	1.953	0.034	3.580	0.139	1.953	> 10000
411	276	3.905	104:SLS2, ID:	-0.139	1.953	0.023	3.254	0.139	1.953	> 10000
412	277	3.905	104:SLS2, ID:	-0.139	1.953	0.023	3.254	0.139	1.953	> 10000
413	278	3.905	104:SLS2, ID:	-0.139	1.953	-0.023	3.254	0.139	1.953	> 10000
414	279	3.905	104:SLS2, ID:	-0.140	1.953	-0.023	3.254	0.140	1.953	> 10000
415	280	3.905	104:SLS2, ID:	-0.145	1.953	0.035	2.603	0.146	1.953	> 10000
416	281	3.905	104:SLS2, ID:	-0.139	1.953	0.034	3.580	0.139	1.953	> 10000
417	253	3.726	104:SLS2, ID:	-2.971	1.863	-0.013	2.174	2.971	1.863	1254
418	255	2.832	104:SLS2, ID:	-1.078	1.416	-0.012	1.416	1.079	1.416	2626
419	257	3.726	104:SLS2, ID:	-2.971	1.863	0.025	3.105	2.971	1.863	1254
420	264	2.832	104:SLS2, ID:	-1.078	1.416	0.013	1.416	1.079	1.416	2626
421	265	3.726	104:SLS2, ID:	-2.971	1.863	-0.013	0.311	2.971	1.863	1254

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
422	258	2.832	104:SLS2, ID:	-1.079	1.416	0.012	1.416	1.079	1.416	2625
423	259	3.726	104:SLS2, ID:	-2.971	1.863	-0.012	1.863	2.971	1.863	1254
424	266	2.832	104:SLS2, ID:	-1.078	1.416	0.013	1.416	1.079	1.416	2626
425	267	3.726	104:SLS2, ID:	-2.971	1.863	0.013	1.553	2.971	1.863	1254
426	260	2.832	104:SLS2, ID:	-1.078	1.416	0.013	1.416	1.079	1.416	2626
427	261	3.726	104:SLS2, ID:	-2.971	1.863	0.014	3.416	2.971	1.863	1254
428	268	2.832	104:SLS2, ID:	-1.078	1.416	-0.012	1.416	1.079	1.416	2626
429	269	3.726	104:SLS2, ID:	-2.970	1.863	0.012	0.932	2.970	1.863	1254
430	262	2.832	104:SLS2, ID:	-1.079	1.416	-0.012	1.416	1.079	1.416	2624
431	263	3.726	104:SLS2, ID:	-2.970	1.863	0.019	2.795	2.970	1.863	1254
432	270	2.832	104:SLS2, ID:	-1.079	1.416	-0.012	1.416	1.079	1.416	2624
433	254	3.726	104:SLS2, ID:	-0.152	1.863	-0.013	2.174	0.152	1.863	> 10000
434	256	2.832	104:SLS2, ID:	-0.051	1.416	-0.012	1.416	0.057	1.416	> 10000
435	274	3.000	104:SLS2, ID:	-0.064	1.500	-0.000	2.750	0.064	1.500	> 10000
438	291	3.905	104:SLS2, ID:	-0.141	1.953	0.027	2.603	0.143	1.953	> 10000
439	293	3.905	104:SLS2, ID:	-0.141	1.953	0.027	2.603	0.142	1.953	> 10000
440	294	3.905	104:SLS2, ID:	-0.142	1.953	-0.022	0.325	0.143	1.953	> 10000
441	295	3.905	104:SLS2, ID:	-0.142	1.953	-0.022	0.325	0.143	1.953	> 10000
442	296	3.905	104:SLS2, ID:	-0.141	1.953	-0.022	0.325	0.143	1.953	> 10000
443	297	3.905	104:SLS2, ID:	-0.143	1.953	-0.022	0.325	0.144	1.953	> 10000
444	298	3.905	104:SLS2, ID:	-0.142	1.953	-0.022	0.325	0.143	1.953	> 10000
445	299	3.905	104:SLS2, ID:	-0.141	1.953	-0.022	0.325	0.143	1.953	> 10000
446	271	3.726	104:SLS2, ID:	-2.971	1.863	-0.005	1.863	2.971	1.863	1254
447	273	2.832	104:SLS2, ID:	-1.078	1.416	-0.006	2.596	1.078	1.416	2626
448	275	3.726	104:SLS2, ID:	-2.971	1.863	-0.007	1.553	2.971	1.863	1254
449	282	2.832	104:SLS2, ID:	-1.078	1.416	0.006	0.236	1.078	1.416	2626
450	283	3.726	104:SLS2, ID:	-2.971	1.863	0.005	1.553	2.971	1.863	1254
451	276	2.832	104:SLS2, ID:	-1.079	1.416	0.006	1.416	1.079	1.416	2625
452	277	3.726	104:SLS2, ID:	-2.971	1.863	-0.006	1.863	2.971	1.863	1254
453	284	2.832	104:SLS2, ID:	-1.078	1.416	0.006	0.236	1.078	1.416	2626
454	285	3.726	104:SLS2, ID:	-2.971	1.863	0.005	1.863	2.971	1.863	1254
455	278	2.832	104:SLS2, ID:	-1.078	1.416	0.006	1.416	1.079	1.416	2626
456	279	3.726	104:SLS2, ID:	-2.971	1.863	0.006	1.863	2.971	1.863	1254
457	286	2.832	104:SLS2, ID:	-1.078	1.416	-0.006	2.124	1.078	1.416	2626
458	287	3.726	104:SLS2, ID:	-2.970	1.863	0.007	2.174	2.970	1.863	1254
459	280	2.832	104:SLS2, ID:	-1.079	1.416	-0.006	1.416	1.079	1.416	2624
460	281	3.726	104:SLS2, ID:	-2.970	1.863	-0.012	3.105	2.970	1.863	1254
461	288	2.832	104:SLS2, ID:	-1.079	1.416	-0.006	2.124	1.079	1.416	2624
462	272	3.726	104:SLS2, ID:	-0.152	1.863	-0.005	1.863	0.154	1.863	> 10000
463	274	2.832	104:SLS2, ID:	-0.051	1.416	-0.006	2.596	0.055	1.180	> 10000
464	292	3.000	104:SLS2, ID:	-0.064	1.500	0.025	1.500	0.068	1.500	> 10000
467	309	3.905	104:SLS2, ID:	-0.145	1.953	-0.031	2.603	0.148	1.953	> 10000
468	311	3.905	104:SLS2, ID:	-0.142	1.953	-0.025	2.278	0.142	2.278	> 10000
469	312	3.905	104:SLS2, ID:	-0.142	1.953	-0.025	2.278	0.143	2.278	> 10000
470	313	3.905	104:SLS2, ID:	-0.142	1.953	-0.025	2.278	0.142	2.278	> 10000
471	314	3.905	104:SLS2, ID:	-0.142	1.953	0.026	2.929	0.142	1.953	> 10000
472	315	3.905	104:SLS2, ID:	-0.143	1.953	0.026	2.929	0.143	1.953	> 10000
473	316	3.905	104:SLS2, ID:	-0.142	1.953	0.026	2.929	0.142	1.953	> 10000
474	317	3.905	104:SLS2, ID:	-0.138	1.953	0.029	3.580	0.139	1.953	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
475	289	3.726	104:SLS2, ID:	-2.971	1.863	0.001	0.311	2.971	1.863	1254
476	291	2.832	104:SLS2, ID:	-1.079	1.416	0.002	1.416	1.079	1.416	2626
477	293	3.726	104:SLS2, ID:	-2.971	1.863	0.002	3.416	2.971	1.863	1254
478	300	2.832	104:SLS2, ID:	-1.079	1.416	-0.002	1.416	1.079	1.416	2625
479	301	3.726	104:SLS2, ID:	-2.971	1.863	0.002	3.416	2.971	1.863	1254
480	294	2.832	104:SLS2, ID:	-1.079	1.416	-0.002	1.180	1.079	1.416	2625
481	295	3.726	104:SLS2, ID:	-2.971	1.863	0.002	3.416	2.971	1.863	1254
482	302	2.832	104:SLS2, ID:	-1.078	1.416	-0.002	1.416	1.079	1.416	2626
483	303	3.726	104:SLS2, ID:	-2.971	1.863	-0.002	0.311	2.971	1.863	1254
484	296	2.832	104:SLS2, ID:	-1.078	1.416	-0.002	1.180	1.078	1.416	2626
485	297	3.726	104:SLS2, ID:	-2.971	1.863	-0.001	1.553	2.971	1.863	1254
486	304	2.832	104:SLS2, ID:	-1.078	1.416	0.002	1.416	1.079	1.416	2626
487	305	3.726	104:SLS2, ID:	-2.970	1.863	-0.002	0.311	2.970	1.863	1254
488	298	2.832	104:SLS2, ID:	-1.079	1.416	0.002	1.652	1.079	1.416	2624
489	299	3.726	104:SLS2, ID:	-2.970	1.863	-0.002	1.553	2.970	1.863	1254
490	306	2.832	104:SLS2, ID:	-1.079	1.416	0.002	1.416	1.079	1.416	2624
491	290	3.726	104:SLS2, ID:	-0.152	1.863	0.001	0.311	0.152	1.863	> 10000
492	292	2.832	104:SLS2, ID:	-0.051	1.416	0.002	1.416	0.057	1.416	> 10000
493	310	3.000	104:SLS2, ID:	-0.064	1.500	-0.024	2.750	0.067	1.250	> 10000
496	327	3.905	104:SLS2, ID:	-0.134	1.953	0.027	3.254	0.136	1.953	> 10000
497	329	3.905	104:SLS2, ID:	-0.134	1.953	0.027	3.254	0.135	1.953	> 10000
498	330	3.905	104:SLS2, ID:	-0.142	1.953	-0.026	3.580	0.142	1.953	> 10000
499	331	3.905	104:SLS2, ID:	-0.142	1.953	-0.026	3.580	0.142	1.953	> 10000
500	332	3.905	104:SLS2, ID:	-0.142	1.953	0.020	2.603	0.142	1.953	> 10000
501	333	3.905	104:SLS2, ID:	-0.143	1.953	0.020	2.603	0.143	1.953	> 10000
502	334	3.905	104:SLS2, ID:	-0.151	1.953	-0.026	2.929	0.153	1.953	> 10000
503	335	3.905	104:SLS2, ID:	-0.150	1.953	-0.026	2.929	0.152	1.953	> 10000
504	307	3.726	104:SLS2, ID:	-2.971	1.863	0.009	0.621	2.971	1.863	1254
505	309	2.832	104:SLS2, ID:	-1.078	1.416	0.009	1.416	1.079	1.416	2626
506	311	3.726	104:SLS2, ID:	-2.971	1.863	-0.012	2.484	2.971	1.863	1254
507	318	2.832	104:SLS2, ID:	-1.078	1.416	-0.009	1.416	1.079	1.416	2626
508	319	3.726	104:SLS2, ID:	-2.971	1.863	0.009	0.621	2.971	1.863	1254
509	312	2.832	104:SLS2, ID:	-1.079	1.416	0.000	1.416	1.079	1.416	2625
510	313	3.726	104:SLS2, ID:	-2.971	1.863	0.009	0.621	2.971	1.863	1254
511	320	2.832	104:SLS2, ID:	-1.078	1.416	-0.009	1.416	1.079	1.416	2626
512	321	3.726	104:SLS2, ID:	-2.971	1.863	-0.009	3.105	2.971	1.863	1254
513	314	2.832	104:SLS2, ID:	-1.078	1.416	0.000	1.888	1.078	1.416	2626
514	315	3.726	104:SLS2, ID:	-2.971	1.863	-0.010	3.105	2.971	1.863	1254
515	322	2.832	104:SLS2, ID:	-1.078	1.416	0.009	1.416	1.079	1.416	2626
516	323	3.726	104:SLS2, ID:	-2.970	1.863	-0.009	0.621	2.970	1.863	1254
517	316	2.832	104:SLS2, ID:	-1.079	1.416	0.000	0.472	1.079	1.416	2624
518	317	3.726	104:SLS2, ID:	-2.970	1.863	0.015	2.174	2.970	1.863	1254
519	324	2.832	104:SLS2, ID:	-1.079	1.416	0.009	1.416	1.079	1.416	2624
520	308	3.726	104:SLS2, ID:	-0.152	1.863	0.009	0.621	0.154	1.863	> 10000
521	310	2.832	104:SLS2, ID:	-0.051	1.416	0.009	1.416	0.057	1.416	> 10000
522	328	3.000	104:SLS2, ID:	-0.064	1.500	-0.022	2.250	0.064	1.500	> 10000
525	345	3.905	104:SLS2, ID:	-0.133	1.627	0.016	2.603	0.134	1.953	> 10000
526	347	3.905	104:SLS2, ID:	-0.147	1.627	-0.016	1.627	0.148	1.627	> 10000
527	348	3.905	104:SLS2, ID:	-0.156	1.953	-0.028	3.580	0.159	1.953	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
528	349	3.905	104:SLS2, ID:	-0.149	2.278	-0.022	3.254	0.151	2.278	> 10000
529	350	3.905	104:SLS2, ID:	-0.133	1.627	0.018	0.325	0.134	1.953	> 10000
530	351	3.905	104:SLS2, ID:	-0.134	1.627	0.017	0.325	0.135	1.953	> 10000
531	352	3.905	104:SLS2, ID:	-0.145	1.953	0.017	3.254	0.145	1.953	> 10000
532	353	3.905	104:SLS2, ID:	-0.133	1.953	0.012	3.580	0.134	1.953	> 10000
533	325	3.726	104:SLS2, ID:	-2.971	1.863	0.015	1.863	2.971	1.863	1254
534	327	2.832	104:SLS2, ID:	-1.079	1.416	0.015	1.416	1.079	1.416	2626
535	329	3.726	104:SLS2, ID:	-2.971	1.863	0.021	3.105	2.971	1.863	1254
536	336	2.832	104:SLS2, ID:	-1.079	1.416	-0.015	1.416	1.079	1.416	2625
537	337	3.726	104:SLS2, ID:	-2.971	1.863	0.015	1.863	2.971	1.863	1254
538	330	2.832	104:SLS2, ID:	-1.079	1.416	-0.000	2.596	1.079	1.416	2625
539	331	3.726	104:SLS2, ID:	-2.971	1.863	0.011	2.484	2.971	1.863	1254
540	338	2.832	104:SLS2, ID:	-1.078	1.416	-0.016	1.416	1.079	1.416	2626
541	339	3.726	104:SLS2, ID:	-2.971	1.863	-0.015	1.863	2.971	1.863	1254
542	332	2.832	104:SLS2, ID:	-1.078	1.416	-0.000	1.888	1.078	1.416	2626
543	333	3.726	104:SLS2, ID:	-2.971	1.863	-0.011	0.311	2.971	1.863	1254
544	340	2.832	104:SLS2, ID:	-1.078	1.416	0.015	1.416	1.079	1.416	2626
545	341	3.726	104:SLS2, ID:	-2.970	1.863	-0.018	3.416	2.970	1.863	1254
546	334	2.832	104:SLS2, ID:	-1.079	1.416	-0.000	1.888	1.079	1.416	2624
547	335	3.726	104:SLS2, ID:	-2.970	1.863	-0.021	2.484	2.970	1.863	1254
548	342	2.832	104:SLS2, ID:	-1.079	1.416	0.015	1.416	1.079	1.416	2624
549	326	3.726	104:SLS2, ID:	-0.152	1.863	0.015	1.863	0.154	1.863	> 10000
550	328	2.832	104:SLS2, ID:	-0.051	1.416	0.015	1.416	0.057	1.416	> 10000
551	346	3.000	104:SLS2, ID:	-0.064	1.500	-0.017	2.250	0.064	1.500	> 10000
554	363	3.905	104:SLS2, ID:	-0.150	2.278	-0.011	2.278	0.152	2.278	> 10000
555	365	3.905	104:SLS2, ID:	-0.150	2.278	-0.011	2.278	0.152	2.278	> 10000
556	366	3.905	104:SLS2, ID:	-0.151	1.953	-0.020	3.580	0.152	1.953	> 10000
557	367	3.905	104:SLS2, ID:	-0.151	1.953	-0.011	0.651	0.152	1.953	> 10000
558	368	3.905	104:SLS2, ID:	-0.138	2.278	0.014	1.953	0.138	2.278	> 10000
559	369	3.905	104:SLS2, ID:	-0.139	2.278	0.014	1.953	0.139	2.278	> 10000
560	370	3.905	104:SLS2, ID:	-0.141	1.627	0.009	1.302	0.141	1.627	> 10000
561	371	3.905	104:SLS2, ID:	-0.141	1.627	0.009	1.302	0.141	1.627	> 10000
562	343	3.726	104:SLS2, ID:	-2.971	1.863	0.014	0.311	2.971	1.863	1254
563	345	2.832	104:SLS2, ID:	-1.078	1.416	0.021	2.124	1.078	1.416	2626
564	347	3.726	104:SLS2, ID:	-2.971	1.863	0.021	0.621	2.971	1.863	1254
565	354	2.832	104:SLS2, ID:	-1.078	1.416	-0.021	1.652	1.078	1.416	2626
566	355	3.726	104:SLS2, ID:	-2.971	1.863	-0.052	3.416	2.971	1.863	1254
567	348	2.832	104:SLS2, ID:	-1.079	1.416	-0.020	1.416	1.079	1.416	2625
568	349	3.726	104:SLS2, ID:	-2.971	1.863	0.021	1.863	2.971	1.863	1254
569	356	2.832	104:SLS2, ID:	-1.078	1.416	-0.021	0.236	1.078	1.416	2626
570	357	3.726	104:SLS2, ID:	-2.971	1.863	0.014	0.311	2.971	1.863	1254
571	350	2.832	104:SLS2, ID:	-1.078	1.416	-0.020	1.416	1.079	1.416	2626
572	351	3.726	104:SLS2, ID:	-2.971	1.863	-0.021	0.621	2.971	1.863	1254
573	358	2.832	104:SLS2, ID:	-1.078	1.416	0.020	0.708	1.078	1.416	2626
574	359	3.726	104:SLS2, ID:	-2.970	1.863	0.048	3.105	2.970	1.863	1254
575	352	2.832	104:SLS2, ID:	-1.079	1.416	0.020	1.416	1.079	1.416	2624
576	353	3.726	104:SLS2, ID:	-2.970	1.863	-0.021	1.863	2.970	1.863	1254
577	360	2.832	104:SLS2, ID:	-1.079	1.416	0.020	0.708	1.079	1.416	2624
578	344	3.726	104:SLS2, ID:	-0.152	1.863	0.014	0.311	0.152	1.863	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
579	346	2.832	104:SLS2, ID:	-0.051	1.416	0.021	2.124	0.055	1.180	> 10000
580	364	3.000	104:SLS2, ID:	-0.064	1.500	0.007	0.250	0.064	1.750	> 10000
583	13	3.905	104:SLS2, ID:	-0.152	2.278	-0.004	3.254	0.154	2.278	> 10000
584	14	3.905	104:SLS2, ID:	-0.163	1.953	-0.006	3.580	0.165	1.953	> 10000
585	19	3.905	104:SLS2, ID:	-0.149	1.627	-0.005	3.580	0.150	1.627	> 10000
586	20	3.905	104:SLS2, ID:	-0.150	1.627	-0.005	3.580	0.151	1.627	> 10000
587	25	3.905	104:SLS2, ID:	-0.147	1.953	0.006	2.929	0.147	1.953	> 10000
588	26	3.905	104:SLS2, ID:	-0.148	1.953	0.006	2.929	0.148	1.953	> 10000
589	31	3.905	104:SLS2, ID:	-0.132	1.953	0.006	3.254	0.132	1.953	> 10000
590	32	3.905	104:SLS2, ID:	-0.131	1.627	0.006	3.254	0.132	1.953	> 10000
591	361	3.726	104:SLS2, ID:	-2.971	1.863	0.024	1.863	2.971	1.863	1254
592	363	2.832	104:SLS2, ID:	-1.078	1.416	0.024	1.416	1.079	1.416	2626
593	365	3.726	104:SLS2, ID:	-2.971	1.863	0.024	1.863	2.971	1.863	1254
594	372	2.832	104:SLS2, ID:	-1.078	1.416	-0.024	1.416	1.079	1.416	2626
595	373	3.726	104:SLS2, ID:	-2.971	1.863	0.024	1.863	2.971	1.863	1254
596	366	2.832	104:SLS2, ID:	-1.079	1.416	-0.024	1.416	1.079	1.416	2625
597	367	3.726	104:SLS2, ID:	-2.971	1.863	0.024	1.863	2.971	1.863	1254
598	374	2.832	104:SLS2, ID:	-1.078	1.416	-0.024	1.416	1.079	1.416	2626
599	375	3.726	104:SLS2, ID:	-2.971	1.863	-0.024	1.863	2.971	1.863	1254
600	368	2.832	104:SLS2, ID:	-1.078	1.416	-0.024	1.416	1.079	1.416	2626
601	369	3.726	104:SLS2, ID:	-2.971	1.863	-0.024	1.863	2.971	1.863	1254
602	376	2.832	104:SLS2, ID:	-1.078	1.416	0.024	1.416	1.079	1.416	2626
603	377	3.726	104:SLS2, ID:	-2.970	1.863	-0.024	1.863	2.970	1.863	1254
604	370	2.832	104:SLS2, ID:	-1.079	1.416	0.024	1.416	1.079	1.416	2624
605	371	3.726	104:SLS2, ID:	-2.970	1.863	-0.024	1.863	2.970	1.863	1254
606	378	2.832	104:SLS2, ID:	-1.079	1.416	0.024	1.416	1.079	1.416	2624
607	362	3.726	104:SLS2, ID:	-0.152	1.863	0.024	1.863	0.154	1.863	> 10000
608	364	2.832	104:SLS2, ID:	-0.051	1.416	0.024	1.416	0.057	1.416	> 10000
609	36	3.000	104:SLS2, ID:	-0.064	1.500	-0.004	2.250	0.064	1.500	> 10000
611	11	2.500	104:SLS2, ID:	0.006	1.667	-0.025	1.875	0.025	1.875	> 10000
613	30	2.500	104:SLS2, ID:	-0.005	1.875	0.058	2.083	0.058	2.083	> 10000
615	9	2.500	104:SLS2, ID:	0.005	1.250	-0.050	2.292	0.050	2.292	> 10000
617	24	2.500	104:SLS2, ID:	-0.007	2.292	0.033	0.833	0.033	0.833	> 10000
619	7	2.500	104:SLS2, ID:	0.012	1.875	0.036	1.875	0.038	1.875	> 10000
621	18	2.500	104:SLS2, ID:	-0.013	2.292	-0.040	2.292	0.042	2.292	> 10000
622	1	2.500	104:SLS2, ID:	-0.007	2.292	0.001	2.292	0.007	2.292	> 10000
623	5	2.500	104:SLS2, ID:	0.014	2.292	0.044	2.292	0.046	2.292	> 10000
625	34	2.500	104:SLS2, ID:	-0.000	0.625	0.000	0.625	0.001	1.875	> 10000
627	10	2.500	104:SLS2, ID:	0.014	2.292	-0.002	2.292	0.015	2.292	> 10000
629	28	2.500	104:SLS2, ID:	-0.014	2.292	0.002	2.292	0.015	2.292	> 10000
631	8	2.500	104:SLS2, ID:	0.014	2.292	-0.002	2.292	0.015	2.292	> 10000
633	22	2.500	104:SLS2, ID:	-0.015	2.292	0.002	2.292	0.015	2.292	> 10000
635	6	2.500	104:SLS2, ID:	0.015	2.292	-0.002	2.292	0.015	2.292	> 10000
636	3	2.500	104:SLS2, ID:	0.000	1.042	-0.000	1.042	0.000	1.667	> 10000
637	16	2.500	104:SLS2, ID:	-0.015	2.292	0.002	2.292	0.015	2.292	> 10000
638	12	2.500	104:SLS2, ID:	0.004	1.250	-0.024	1.250	0.025	1.250	> 10000
640	13	2.500	104:SLS2, ID:	-0.000	1.250	-0.000	1.250	0.000	1.250	> 10000
642	14	2.500	104:SLS2, ID:	-0.008	2.083	0.049	2.292	0.050	2.083	> 10000
644	15	2.500	104:SLS2, ID:	0.000	1.250	0.000	1.250	0.000	2.292	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
646	17	2.500	104:SLS2, ID:	0.007	2.292	-0.045	2.292	0.045	2.292	> 10000
648	19	2.500	104:SLS2, ID:	0.000	0.417	0.000	0.417	0.000	2.292	> 10000
650	20	2.500	104:SLS2, ID:	-0.000	0.625	-0.000	0.625	0.001	1.458	> 10000
652	21	2.500	104:SLS2, ID:	-0.000	0.833	-0.000	0.833	0.000	2.292	> 10000
654	23	2.500	104:SLS2, ID:	0.000	1.458	0.000	1.458	0.001	2.292	> 10000
656	25	2.500	104:SLS2, ID:	0.000	1.250	0.000	1.250	0.000	1.458	> 10000
658	26	2.500	104:SLS2, ID:	0.006	2.292	-0.045	2.292	0.045	2.292	> 10000
660	27	2.500	104:SLS2, ID:	-0.000	1.667	-0.000	1.667	0.001	2.083	> 10000
662	29	2.500	104:SLS2, ID:	-0.007	2.292	0.049	1.667	0.050	2.292	> 10000
663	32	2.500	104:SLS2, ID:	0.005	1.458	0.025	1.250	0.025	1.250	> 10000
664	31	2.500	104:SLS2, ID:	-0.000	0.417	-0.000	0.417	0.001	2.083	> 10000
665	33	2.500	104:SLS2, ID:	0.000	1.042	0.000	1.042	0.001	1.875	> 10000
667	101	2.500	104:SLS2, ID:	-0.003	1.042	0.011	1.042	0.012	1.042	> 10000
669	107	2.500	104:SLS2, ID:	-0.001	1.667	0.006	1.667	0.006	1.667	> 10000
671	99	2.500	104:SLS2, ID:	0.001	1.458	-0.004	1.458	0.004	1.458	> 10000
673	105	2.500	104:SLS2, ID:	-0.001	1.458	0.003	1.458	0.003	1.458	> 10000
675	97	2.500	104:SLS2, ID:	0.000	1.458	-0.002	1.458	0.002	1.458	> 10000
677	103	2.500	104:SLS2, ID:	-0.001	0.833	0.004	0.833	0.004	0.833	> 10000
678	91	2.500	104:SLS2, ID:	-0.001	0.625	0.006	0.625	0.007	0.625	> 10000
679	95	2.500	104:SLS2, ID:	0.002	0.833	-0.009	0.833	0.010	0.833	> 10000
681	108	2.500	104:SLS2, ID:	-0.000	1.042	0.001	1.042	0.001	1.042	> 10000
683	100	2.500	104:SLS2, ID:	0.001	2.292	-0.005	2.292	0.005	2.292	> 10000
685	106	2.500	104:SLS2, ID:	-0.001	2.292	0.005	2.292	0.005	2.292	> 10000
687	98	2.500	104:SLS2, ID:	0.001	2.292	-0.005	2.292	0.005	2.292	> 10000
689	104	2.500	104:SLS2, ID:	-0.001	2.292	0.004	2.292	0.005	2.292	> 10000
691	96	2.500	104:SLS2, ID:	0.001	2.292	-0.005	2.292	0.005	2.292	> 10000
692	93	2.500	104:SLS2, ID:	0.000	1.250	-0.001	1.250	0.001	1.250	> 10000
693	102	2.500	104:SLS2, ID:	-0.001	2.292	0.006	2.292	0.006	2.292	> 10000
695	119	2.500	104:SLS2, ID:	0.001	1.250	0.012	1.250	0.012	1.250	> 10000
697	125	2.500	104:SLS2, ID:	0.000	1.667	0.006	1.667	0.006	1.667	> 10000
699	117	2.500	104:SLS2, ID:	-0.000	1.667	-0.004	1.667	0.004	1.667	> 10000
701	123	2.500	104:SLS2, ID:	0.000	1.458	0.003	1.458	0.003	1.458	> 10000
703	115	2.500	104:SLS2, ID:	-0.000	1.667	-0.002	1.667	0.002	1.667	> 10000
705	121	2.500	104:SLS2, ID:	0.000	0.833	0.004	0.833	0.004	0.833	> 10000
706	109	2.500	104:SLS2, ID:	0.001	0.833	0.007	0.833	0.007	0.833	> 10000
707	113	2.500	104:SLS2, ID:	-0.001	1.042	-0.010	1.042	0.010	1.042	> 10000
709	126	2.500	104:SLS2, ID:	0.000	1.875	0.002	1.875	0.002	1.875	> 10000
711	118	2.500	104:SLS2, ID:	-0.000	1.667	-0.002	1.667	0.003	2.083	> 10000
713	124	2.500	104:SLS2, ID:	0.000	2.292	0.002	2.292	0.002	2.292	> 10000
715	116	2.500	104:SLS2, ID:	-0.000	2.292	-0.002	2.292	0.002	2.292	> 10000
717	122	2.500	104:SLS2, ID:	0.000	2.292	0.001	2.292	0.001	2.292	> 10000
719	114	2.500	104:SLS2, ID:	-0.000	2.292	-0.002	2.292	0.002	2.292	> 10000
720	111	2.500	104:SLS2, ID:	-0.000	1.458	-0.002	1.458	0.002	1.458	> 10000
721	120	2.500	104:SLS2, ID:	0.000	2.083	0.003	2.083	0.003	2.083	> 10000
723	191	2.500	104:SLS2, ID:	-0.008	1.667	-0.025	1.875	0.025	1.875	> 10000
725	197	2.500	104:SLS2, ID:	-0.008	2.083	0.058	2.083	0.059	2.083	> 10000
727	189	2.500	104:SLS2, ID:	0.008	1.458	-0.050	2.292	0.051	2.292	> 10000
729	195	2.500	104:SLS2, ID:	0.009	0.833	0.029	1.042	0.029	1.042	> 10000
731	187	2.500	104:SLS2, ID:	-0.019	1.875	0.033	1.875	0.038	1.875	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
733	193	2.500	104:SLS2, ID:	0.021	2.292	-0.037	2.292	0.042	2.292	> 10000
734	181	2.500	104:SLS2, ID:	0.007	2.292	0.002	2.292	0.008	2.292	> 10000
735	185	2.500	104:SLS2, ID:	-0.022	2.292	0.041	2.292	0.046	2.292	> 10000
737	198	2.500	104:SLS2, ID:	0.000	1.042	0.000	1.042	0.001	1.875	> 10000
739	190	2.500	104:SLS2, ID:	0.014	2.083	0.026	1.250	0.026	1.250	> 10000
741	196	2.500	104:SLS2, ID:	-0.015	1.458	-0.026	1.250	0.026	1.250	> 10000
743	188	2.500	104:SLS2, ID:	0.015	1.250	0.022	1.042	0.026	1.250	> 10000
745	194	2.500	104:SLS2, ID:	-0.015	1.667	-0.026	1.250	0.026	1.250	> 10000
747	186	2.500	104:SLS2, ID:	0.015	1.458	0.022	1.042	0.026	1.250	> 10000
748	183	2.500	104:SLS2, ID:	-0.000	1.250	-0.000	1.250	0.000	1.250	> 10000
749	192	2.500	104:SLS2, ID:	-0.014	1.250	0.022	1.250	0.026	1.250	> 10000
751	209	2.500	104:SLS2, ID:	0.002	2.292	0.025	0.625	0.025	1.875	> 10000
753	215	2.500	104:SLS2, ID:	-0.002	2.292	0.058	2.083	0.058	2.083	> 10000
755	207	2.500	104:SLS2, ID:	0.002	2.292	-0.050	1.458	0.050	2.292	> 10000
757	213	2.500	104:SLS2, ID:	-0.002	2.292	0.033	0.833	0.033	0.833	> 10000
759	205	2.500	104:SLS2, ID:	0.002	2.292	0.037	1.875	0.037	1.875	> 10000
761	211	2.500	104:SLS2, ID:	-0.002	2.292	-0.041	2.292	0.041	2.292	> 10000
762	199	2.500	104:SLS2, ID:	-0.002	2.292	-0.000	1.458	0.002	2.292	> 10000
763	203	2.500	104:SLS2, ID:	0.002	2.292	0.045	2.292	0.046	2.292	> 10000
765	216	2.500	104:SLS2, ID:	-0.000	1.042	0.000	0.000	0.001	1.875	> 10000
767	208	2.500	104:SLS2, ID:	0.015	2.292	0.025	1.250	0.026	1.250	> 10000
769	214	2.500	104:SLS2, ID:	-0.015	2.292	-0.025	1.250	0.026	1.250	> 10000
771	206	2.500	104:SLS2, ID:	0.015	2.292	-0.025	1.250	0.026	1.250	> 10000
773	212	2.500	104:SLS2, ID:	-0.015	2.292	-0.025	1.250	0.026	1.250	> 10000
775	204	2.500	104:SLS2, ID:	0.015	2.292	-0.025	1.250	0.026	1.250	> 10000
776	201	2.500	104:SLS2, ID:	0.000	1.250	0.000	0.000	0.000	2.083	> 10000
777	210	2.500	104:SLS2, ID:	-0.015	2.292	0.025	1.250	0.026	1.250	> 10000
779	227	2.500	104:SLS2, ID:	0.010	1.250	0.023	1.250	0.025	1.250	> 10000
781	233	2.500	104:SLS2, ID:	-0.008	1.250	0.051	2.292	0.051	2.292	> 10000
783	225	2.500	104:SLS2, ID:	-0.001	2.292	-0.047	2.292	0.047	2.292	> 10000
785	231	2.500	104:SLS2, ID:	-0.012	2.292	0.004	2.292	0.013	2.292	> 10000
787	223	2.500	104:SLS2, ID:	0.012	2.292	-0.004	2.292	0.012	2.292	> 10000
789	229	2.500	104:SLS2, ID:	-0.025	2.292	-0.040	2.292	0.047	2.292	> 10000
790	217	2.500	104:SLS2, ID:	-0.015	1.250	0.022	1.042	0.026	1.250	> 10000
791	221	2.500	104:SLS2, ID:	0.026	2.292	0.044	2.292	0.051	2.292	> 10000
793	234	2.500	104:SLS2, ID:	-0.000	1.458	0.000	1.458	0.001	1.875	> 10000
795	226	2.500	104:SLS2, ID:	0.015	2.292	-0.005	2.292	0.016	2.292	> 10000
797	232	2.500	104:SLS2, ID:	-0.015	2.292	0.005	2.292	0.015	2.292	> 10000
799	224	2.500	104:SLS2, ID:	0.015	2.292	-0.005	2.292	0.016	2.292	> 10000
801	230	2.500	104:SLS2, ID:	-0.015	2.292	0.005	2.292	0.016	2.292	> 10000
803	222	2.500	104:SLS2, ID:	0.015	2.292	-0.005	2.292	0.016	2.292	> 10000
804	219	2.500	104:SLS2, ID:	0.000	1.042	-0.000	1.042	0.000	1.042	> 10000
805	228	2.500	104:SLS2, ID:	-0.015	2.292	0.005	2.292	0.016	2.292	> 10000
807	299	2.500	104:SLS2, ID:	-0.001	1.042	0.011	1.042	0.012	1.042	> 10000
809	305	2.500	104:SLS2, ID:	-0.001	1.667	0.007	1.667	0.007	1.667	> 10000
811	297	2.500	104:SLS2, ID:	0.000	1.667	-0.004	1.667	0.004	1.667	> 10000
813	303	2.500	104:SLS2, ID:	-0.000	1.458	0.003	1.458	0.003	1.458	> 10000
815	295	2.500	104:SLS2, ID:	0.000	1.667	-0.002	1.667	0.002	1.667	> 10000
817	301	2.500	104:SLS2, ID:	-0.000	0.833	0.004	0.833	0.004	0.833	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
818	289	2.500	104:SLS2, ID:	-0.001	0.625	0.007	0.625	0.007	0.625	> 10000
819	293	2.500	104:SLS2, ID:	0.001	1.042	-0.010	1.042	0.010	1.042	> 10000
821	306	2.500	104:SLS2, ID:	-0.000	1.042	0.001	1.042	0.001	1.042	> 10000
823	298	2.500	104:SLS2, ID:	0.000	1.875	-0.003	1.875	0.004	2.292	> 10000
825	304	2.500	104:SLS2, ID:	-0.000	2.292	0.003	2.292	0.004	2.292	> 10000
827	296	2.500	104:SLS2, ID:	0.000	2.292	-0.003	2.292	0.003	2.292	> 10000
829	302	2.500	104:SLS2, ID:	-0.000	2.292	0.003	2.292	0.003	2.292	> 10000
831	294	2.500	104:SLS2, ID:	0.000	2.292	-0.003	2.292	0.003	2.292	> 10000
832	291	2.500	104:SLS2, ID:	0.000	1.250	-0.001	1.250	0.001	1.250	> 10000
833	300	2.500	104:SLS2, ID:	-0.000	1.875	0.004	1.875	0.004	1.875	> 10000
835	317	2.500	104:SLS2, ID:	0.003	1.250	0.011	1.250	0.011	1.250	> 10000
837	323	2.500	104:SLS2, ID:	0.001	1.667	0.006	1.667	0.006	1.667	> 10000
839	315	2.500	104:SLS2, ID:	-0.001	1.458	-0.004	1.458	0.004	1.458	> 10000
841	321	2.500	104:SLS2, ID:	0.001	1.458	0.003	1.458	0.003	1.458	> 10000
843	313	2.500	104:SLS2, ID:	-0.000	1.458	-0.002	1.458	0.002	1.458	> 10000
845	319	2.500	104:SLS2, ID:	0.001	0.833	0.004	0.833	0.004	0.833	> 10000
846	307	2.500	104:SLS2, ID:	0.002	0.625	0.007	0.625	0.007	0.625	> 10000
847	311	2.500	104:SLS2, ID:	-0.002	0.833	-0.009	0.833	0.010	0.833	> 10000
849	324	2.500	104:SLS2, ID:	0.000	1.042	0.001	1.042	0.001	1.042	> 10000
851	316	2.500	104:SLS2, ID:	-0.024	1.250	0.006	1.250	0.025	1.250	> 10000
853	322	2.500	104:SLS2, ID:	0.024	1.250	-0.006	1.250	0.025	1.250	> 10000
855	314	2.500	104:SLS2, ID:	0.024	1.250	0.006	1.042	0.025	1.250	> 10000
857	320	2.500	104:SLS2, ID:	0.024	1.250	-0.006	1.250	0.025	1.250	> 10000
859	312	2.500	104:SLS2, ID:	0.024	1.250	0.005	1.042	0.025	1.250	> 10000
860	309	2.500	104:SLS2, ID:	-0.000	1.250	-0.001	1.250	0.001	1.250	> 10000
861	318	2.500	104:SLS2, ID:	-0.024	1.250	0.006	1.250	0.025	1.250	> 10000
862	37	2.500	104:SLS2, ID:	-0.021	1.250	0.023	1.042	0.027	1.250	> 10000
875	47	2.500	104:SLS2, ID:	0.015	1.250	-0.022	1.458	0.025	1.250	> 10000
876	39	2.500	104:SLS2, ID:	0.001	2.292	-0.000	2.292	0.001	2.292	> 10000
877	48	2.500	104:SLS2, ID:	-0.013	2.292	0.006	2.292	0.015	2.292	> 10000
878	41	2.500	104:SLS2, ID:	0.037	2.292	0.037	2.292	0.053	2.292	> 10000
879	49	2.500	104:SLS2, ID:	-0.035	2.292	-0.034	2.292	0.049	2.292	> 10000
880	42	2.500	104:SLS2, ID:	0.013	2.292	-0.006	2.292	0.015	2.292	> 10000
881	50	2.500	104:SLS2, ID:	-0.013	2.292	0.006	2.292	0.015	2.292	> 10000
882	43	2.500	104:SLS2, ID:	0.015	2.292	-0.007	2.292	0.017	2.292	> 10000
883	51	2.500	104:SLS2, ID:	-0.015	2.292	0.007	2.292	0.017	2.292	> 10000
884	44	2.500	104:SLS2, ID:	0.013	2.292	-0.006	2.292	0.015	2.292	> 10000
885	52	2.500	104:SLS2, ID:	-0.013	2.292	0.006	2.292	0.014	2.292	> 10000
886	45	2.500	104:SLS2, ID:	-0.004	2.292	-0.049	2.292	0.049	2.292	> 10000
887	53	2.500	104:SLS2, ID:	-0.010	1.250	0.053	2.292	0.053	2.292	> 10000
888	46	2.500	104:SLS2, ID:	0.013	2.292	-0.006	2.292	0.015	2.292	> 10000
889	54	2.500	104:SLS2, ID:	-0.001	2.083	0.001	2.083	0.001	2.083	> 10000
890	55	2.500	104:SLS2, ID:	0.015	1.250	0.020	1.250	0.025	1.250	> 10000
903	65	2.500	104:SLS2, ID:	-0.016	1.667	0.026	1.458	0.030	1.458	> 10000
904	57	2.500	104:SLS2, ID:	0.000	1.042	-0.000	1.042	0.001	1.667	> 10000
905	66	2.500	104:SLS2, ID:	-0.010	2.292	0.009	2.292	0.013	2.292	> 10000
906	59	2.500	104:SLS2, ID:	-0.030	2.292	-0.034	2.292	0.045	2.292	> 10000
907	67	2.500	104:SLS2, ID:	-0.002	1.250	0.002	1.250	0.003	1.250	> 10000
908	60	2.500	104:SLS2, ID:	0.009	2.292	-0.009	2.292	0.013	2.292	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
909	68	2.500	104:SLS2, ID:	-0.009	2.292	0.009	2.292	0.013	2.292	> 10000
910	61	2.500	104:SLS2, ID:	0.001	1.250	-0.001	1.250	0.002	1.250	> 10000
911	69	2.500	104:SLS2, ID:	-0.001	1.042	0.001	1.042	0.002	1.042	> 10000
912	62	2.500	104:SLS2, ID:	0.009	2.292	-0.009	2.292	0.013	2.292	> 10000
913	70	2.500	104:SLS2, ID:	-0.009	2.292	0.009	2.292	0.013	2.292	> 10000
914	63	2.500	104:SLS2, ID:	0.002	1.458	-0.002	1.458	0.003	1.458	> 10000
915	71	2.500	104:SLS2, ID:	-0.025	1.667	-0.022	1.667	0.033	1.667	> 10000
916	64	2.500	104:SLS2, ID:	0.009	2.292	-0.009	2.292	0.013	2.292	> 10000
917	72	2.500	104:SLS2, ID:	-0.000	0.625	0.000	0.625	0.001	0.625	> 10000
918	73	2.500	104:SLS2, ID:	0.028	1.667	0.017	1.667	0.033	1.667	> 10000
931	83	2.500	104:SLS2, ID:	0.029	1.875	0.024	1.875	0.038	1.875	> 10000
932	75	2.500	104:SLS2, ID:	0.001	1.875	-0.001	1.875	0.001	1.875	> 10000
933	84	2.500	104:SLS2, ID:	-0.021	1.458	0.017	1.250	0.025	1.250	> 10000
934	77	2.500	104:SLS2, ID:	-0.039	2.292	-0.024	2.292	0.045	2.292	> 10000
935	85	2.500	104:SLS2, ID:	-0.002	1.042	0.003	1.042	0.004	1.042	> 10000
936	78	2.500	104:SLS2, ID:	0.021	1.458	-0.016	1.250	0.025	1.250	> 10000
937	86	2.500	104:SLS2, ID:	-0.024	1.250	0.014	1.042	0.025	1.250	> 10000
938	79	2.500	104:SLS2, ID:	0.001	1.250	-0.002	1.250	0.002	1.250	> 10000
939	87	2.500	104:SLS2, ID:	-0.001	1.458	0.002	1.458	0.002	1.458	> 10000
940	80	2.500	104:SLS2, ID:	0.021	1.458	-0.017	1.250	0.025	1.250	> 10000
941	88	2.500	104:SLS2, ID:	-0.024	1.250	0.014	1.042	0.025	1.250	> 10000
942	81	2.500	104:SLS2, ID:	0.002	1.875	-0.003	1.875	0.004	1.875	> 10000
943	89	2.500	104:SLS2, ID:	-0.041	2.292	-0.021	2.292	0.046	2.292	> 10000
944	82	2.500	104:SLS2, ID:	0.024	1.250	-0.014	1.042	0.025	1.250	> 10000
945	90	2.500	104:SLS2, ID:	-0.001	1.875	0.001	1.875	0.001	1.875	> 10000
946	127	2.500	104:SLS2, ID:	0.042	2.292	-0.018	2.292	0.045	2.292	> 10000
959	137	2.500	104:SLS2, ID:	0.031	1.042	0.016	0.833	0.031	1.042	> 10000
960	129	2.500	104:SLS2, ID:	-0.000	1.250	-0.001	1.250	0.001	1.250	> 10000
961	138	2.500	104:SLS2, ID:	-0.001	2.292	-0.002	2.292	0.003	2.292	> 10000
962	131	2.500	104:SLS2, ID:	-0.029	1.458	-0.011	1.667	0.030	1.458	> 10000
963	139	2.500	104:SLS2, ID:	-0.022	1.250	0.012	1.250	0.025	1.250	> 10000
964	132	2.500	104:SLS2, ID:	0.001	2.083	0.003	2.083	0.004	2.083	> 10000
965	140	2.500	104:SLS2, ID:	-0.001	2.292	-0.004	2.292	0.004	2.292	> 10000
966	133	2.500	104:SLS2, ID:	-0.024	1.250	-0.009	1.458	0.025	1.250	> 10000
967	141	2.500	104:SLS2, ID:	-0.022	1.250	0.011	1.250	0.025	1.250	> 10000
968	134	2.500	104:SLS2, ID:	0.002	2.292	0.004	2.292	0.004	2.292	> 10000
969	142	2.500	104:SLS2, ID:	-0.001	2.292	-0.003	2.292	0.004	2.292	> 10000
970	135	2.500	104:SLS2, ID:	-0.024	1.250	-0.011	1.458	0.025	1.250	> 10000
971	143	2.500	104:SLS2, ID:	-0.025	1.042	0.014	1.042	0.029	1.042	> 10000
972	136	2.500	104:SLS2, ID:	0.001	2.292	0.003	2.292	0.004	2.292	> 10000
973	144	2.500	104:SLS2, ID:	0.000	1.250	0.001	1.250	0.001	1.875	> 10000
974	145	2.500	104:SLS2, ID:	-0.021	1.458	0.020	1.458	0.029	1.458	> 10000
987	155	2.500	104:SLS2, ID:	-0.022	1.667	0.026	1.667	0.034	1.667	> 10000
988	147	2.500	104:SLS2, ID:	-0.000	1.250	-0.001	1.250	0.001	1.250	> 10000
989	156	2.500	104:SLS2, ID:	-0.005	2.292	-0.006	2.292	0.007	2.292	> 10000
990	149	2.500	104:SLS2, ID:	0.035	2.292	-0.029	2.292	0.045	2.292	> 10000
991	157	2.500	104:SLS2, ID:	0.002	0.625	0.002	0.625	0.003	0.625	> 10000
992	150	2.500	104:SLS2, ID:	0.005	2.292	0.006	2.292	0.008	2.292	> 10000
993	158	2.500	104:SLS2, ID:	-0.005	2.292	-0.007	2.292	0.009	2.292	> 10000

Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
994	151	2.500	104:SLS2, ID:	-0.001	1.042	-0.001	1.042	0.002	1.042	> 10000
995	159	2.500	104:SLS2, ID:	0.001	1.667	0.002	1.667	0.002	1.667	> 10000
996	152	2.500	104:SLS2, ID:	0.005	2.292	0.007	2.292	0.008	2.292	> 10000
997	160	2.500	104:SLS2, ID:	-0.005	2.292	-0.007	2.292	0.009	2.292	> 10000
998	153	2.500	104:SLS2, ID:	-0.002	1.667	-0.003	1.667	0.003	1.667	> 10000
999	161	2.500	104:SLS2, ID:	0.037	2.292	-0.026	2.292	0.046	2.292	> 10000
1000	154	2.500	104:SLS2, ID:	0.005	2.292	0.006	2.292	0.008	2.292	> 10000
1001	162	2.500	104:SLS2, ID:	0.000	0.417	0.000	0.417	0.001	1.875	> 10000
1002	163	2.500	104:SLS2, ID:	0.014	2.292	0.009	2.292	0.016	2.292	> 10000
1015	173	2.500	104:SLS2, ID:	-0.023	1.875	-0.022	2.083	0.027	1.875	> 10000
1016	165	2.500	104:SLS2, ID:	-0.000	1.042	-0.000	1.042	0.000	1.042	> 10000
1017	174	2.500	104:SLS2, ID:	-0.009	2.292	-0.006	2.292	0.011	2.292	> 10000
1018	167	2.500	104:SLS2, ID:	-0.040	2.292	0.028	2.292	0.049	2.292	> 10000
1019	175	2.500	104:SLS2, ID:	0.038	2.292	-0.024	2.292	0.045	2.292	> 10000
1020	168	2.500	104:SLS2, ID:	0.009	2.292	0.006	2.292	0.011	2.292	> 10000
1021	176	2.500	104:SLS2, ID:	-0.009	2.292	-0.006	2.292	0.011	2.292	> 10000
1022	169	2.500	104:SLS2, ID:	-0.030	1.667	0.019	1.667	0.036	1.667	> 10000
1023	177	2.500	104:SLS2, ID:	0.015	0.833	0.029	1.042	0.030	1.042	> 10000
1024	170	2.500	104:SLS2, ID:	0.009	2.292	0.006	2.292	0.011	2.292	> 10000
1025	178	2.500	104:SLS2, ID:	-0.009	2.292	-0.006	2.292	0.011	2.292	> 10000
1026	171	2.500	104:SLS2, ID:	-0.024	1.250	-0.025	1.458	0.027	1.250	> 10000
1027	179	2.500	104:SLS2, ID:	0.034	2.083	0.018	0.833	0.038	2.083	> 10000
1028	172	2.500	104:SLS2, ID:	0.009	2.292	0.006	2.292	0.010	2.292	> 10000
1029	180	2.500	104:SLS2, ID:	0.000	0.833	0.000	0.833	0.001	1.875	> 10000
1030	235	2.500	104:SLS2, ID:	-0.017	2.292	0.012	2.292	0.021	2.292	> 10000
1043	245	2.500	104:SLS2, ID:	0.026	1.875	-0.023	2.083	0.029	1.875	> 10000
1044	237	2.500	104:SLS2, ID:	0.000	1.042	-0.000	1.042	0.000	1.042	> 10000
1045	246	2.500	104:SLS2, ID:	-0.011	2.292	0.008	2.292	0.014	2.292	> 10000
1046	239	2.500	104:SLS2, ID:	0.044	2.292	0.025	2.292	0.050	2.292	> 10000
1047	247	2.500	104:SLS2, ID:	-0.041	2.292	-0.022	2.292	0.047	2.292	> 10000
1048	240	2.500	104:SLS2, ID:	0.011	2.292	-0.008	2.292	0.014	2.292	> 10000
1049	248	2.500	104:SLS2, ID:	-0.011	2.292	0.008	2.292	0.014	2.292	> 10000
1050	241	2.500	104:SLS2, ID:	0.032	1.667	-0.021	1.875	0.037	1.667	> 10000
1051	249	2.500	104:SLS2, ID:	-0.016	0.833	0.030	1.042	0.031	1.042	> 10000
1052	242	2.500	104:SLS2, ID:	0.011	2.292	-0.007	2.292	0.013	2.292	> 10000
1053	250	2.500	104:SLS2, ID:	-0.011	2.292	0.008	2.292	0.014	2.292	> 10000
1054	243	2.500	104:SLS2, ID:	0.026	1.250	-0.026	1.458	0.028	1.250	> 10000
1055	251	2.500	104:SLS2, ID:	-0.038	2.083	0.020	2.292	0.040	2.083	> 10000
1056	244	2.500	104:SLS2, ID:	0.012	2.292	-0.008	2.292	0.014	2.292	> 10000
1057	252	2.500	104:SLS2, ID:	-0.000	0.833	0.000	0.833	0.001	1.875	> 10000
1058	253	2.500	104:SLS2, ID:	-0.004	0.625	0.005	0.625	0.006	0.625	> 10000
1071	263	2.500	104:SLS2, ID:	0.024	2.083	0.027	0.833	0.034	0.833	> 10000
1072	255	2.500	104:SLS2, ID:	0.000	1.250	-0.001	1.250	0.001	1.250	> 10000
1073	264	2.500	104:SLS2, ID:	-0.021	1.458	0.021	1.250	0.026	1.250	> 10000
1074	257	2.500	104:SLS2, ID:	-0.038	2.292	-0.032	2.083	0.050	2.083	> 10000
1075	265	2.500	104:SLS2, ID:	0.021	1.042	0.021	1.042	0.029	1.042	> 10000
1076	258	2.500	104:SLS2, ID:	0.020	1.458	-0.020	1.250	0.025	1.250	> 10000
1077	266	2.500	104:SLS2, ID:	-0.023	1.250	0.016	1.042	0.025	1.250	> 10000
1078	259	2.500	104:SLS2, ID:	0.024	1.458	0.016	1.458	0.029	1.458	> 10000

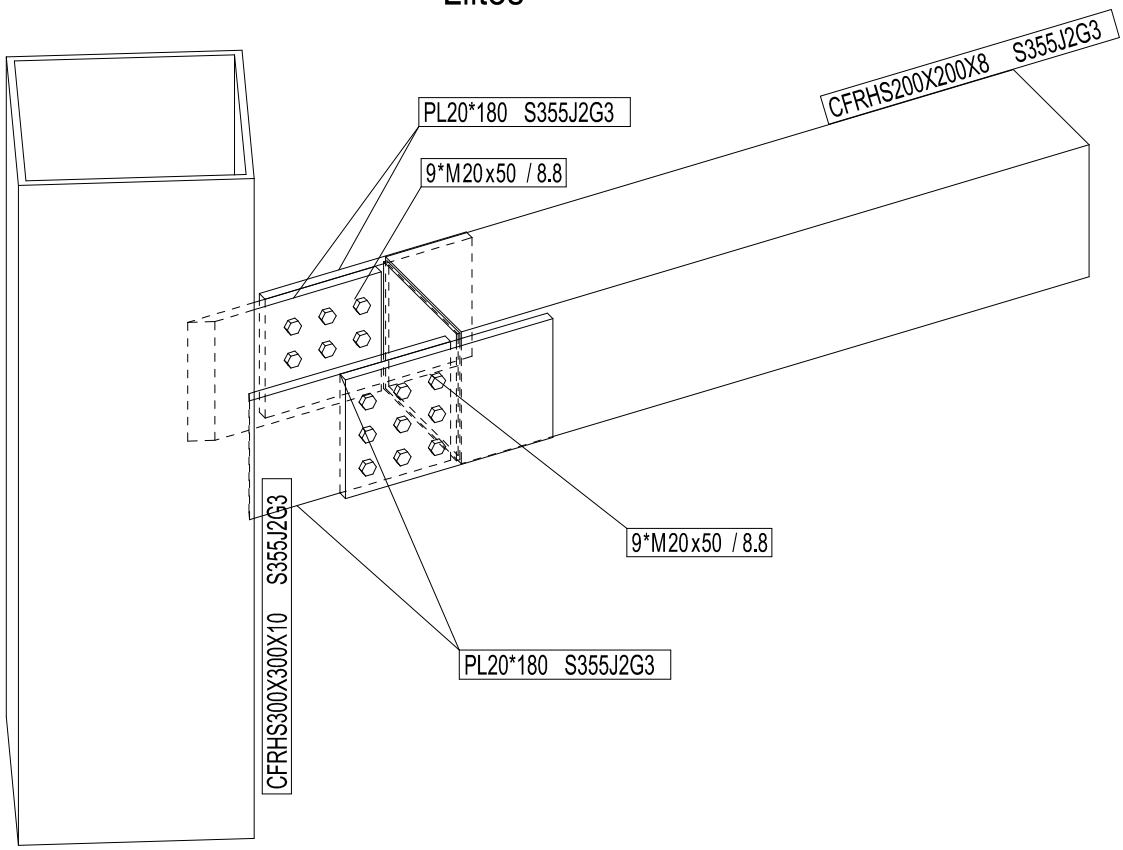
Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
1079	267	2.500	104:SLS2, ID:	0.022	1.042	0.019	1.042	0.029	1.042	> 10000
1080	260	2.500	104:SLS2, ID:	0.020	1.458	-0.020	1.250	0.026	1.250	> 10000
1081	268	2.500	104:SLS2, ID:	-0.023	1.250	0.017	1.042	0.025	1.250	> 10000
1082	261	2.500	104:SLS2, ID:	0.021	1.250	-0.015	1.458	0.025	1.250	> 10000
1083	269	2.500	104:SLS2, ID:	-0.034	2.292	-0.024	2.292	0.041	2.292	> 10000
1084	262	2.500	104:SLS2, ID:	0.024	1.250	-0.017	1.042	0.026	1.250	> 10000
1085	270	2.500	104:SLS2, ID:	-0.000	1.458	0.001	1.458	0.001	1.875	> 10000
1086	271	2.500	104:SLS2, ID:	-0.002	0.625	0.006	0.625	0.006	0.625	> 10000
1099	281	2.500	104:SLS2, ID:	0.041	2.292	0.020	1.875	0.046	2.292	> 10000
1100	273	2.500	104:SLS2, ID:	0.000	1.250	-0.001	1.250	0.001	1.250	> 10000
1101	282	2.500	104:SLS2, ID:	0.021	1.250	0.014	1.250	0.025	1.250	> 10000
1102	275	2.500	104:SLS2, ID:	0.003	0.833	-0.009	0.833	0.009	0.833	> 10000
1103	283	2.500	104:SLS2, ID:	-0.001	0.625	0.003	0.625	0.004	0.625	> 10000
1104	276	2.500	104:SLS2, ID:	-0.022	1.250	-0.012	1.250	0.025	1.250	> 10000
1105	284	2.500	104:SLS2, ID:	-0.024	1.250	0.010	1.042	0.025	1.250	> 10000
1106	277	2.500	104:SLS2, ID:	0.001	1.250	-0.002	1.250	0.002	1.250	> 10000
1107	285	2.500	104:SLS2, ID:	-0.001	1.458	0.003	1.458	0.003	1.458	> 10000
1108	278	2.500	104:SLS2, ID:	-0.022	1.250	-0.012	1.250	0.025	1.250	> 10000
1109	286	2.500	104:SLS2, ID:	-0.024	1.250	0.010	1.042	0.025	1.250	> 10000
1110	279	2.500	104:SLS2, ID:	0.001	1.458	-0.004	1.458	0.004	1.458	> 10000
1111	287	2.500	104:SLS2, ID:	-0.043	2.292	-0.015	2.292	0.046	2.292	> 10000
1112	280	2.500	104:SLS2, ID:	0.025	1.250	-0.012	1.042	0.025	1.250	> 10000
1113	288	2.500	104:SLS2, ID:	-0.000	1.042	0.001	1.042	0.001	1.042	> 10000
1114	325	2.500	104:SLS2, ID:	-0.028	1.667	0.017	1.667	0.033	1.667	> 10000
1127	335	2.500	104:SLS2, ID:	-0.029	1.875	0.024	1.875	0.038	1.875	> 10000
1128	327	2.500	104:SLS2, ID:	-0.001	1.875	-0.001	1.875	0.001	1.875	> 10000
1129	336	2.500	104:SLS2, ID:	-0.002	2.292	-0.004	2.292	0.005	2.292	> 10000
1130	329	2.500	104:SLS2, ID:	0.039	2.292	-0.024	2.292	0.045	2.292	> 10000
1131	337	2.500	104:SLS2, ID:	0.002	0.833	0.003	0.833	0.004	0.833	> 10000
1132	330	2.500	104:SLS2, ID:	0.003	2.292	0.004	2.292	0.005	2.292	> 10000
1133	338	2.500	104:SLS2, ID:	-0.003	2.292	-0.005	2.292	0.006	2.292	> 10000
1134	331	2.500	104:SLS2, ID:	-0.001	1.250	-0.002	1.250	0.002	1.250	> 10000
1135	339	2.500	104:SLS2, ID:	0.001	1.667	0.002	1.667	0.002	1.667	> 10000
1136	332	2.500	104:SLS2, ID:	0.003	2.292	0.005	2.292	0.006	2.292	> 10000
1137	340	2.500	104:SLS2, ID:	-0.003	2.292	-0.005	2.292	0.006	2.292	> 10000
1138	333	2.500	104:SLS2, ID:	-0.002	1.667	-0.003	1.667	0.004	1.667	> 10000
1139	341	2.500	104:SLS2, ID:	0.041	2.292	-0.021	2.292	0.046	2.292	> 10000
1140	334	2.500	104:SLS2, ID:	0.002	2.292	0.004	2.292	0.005	2.292	> 10000
1141	342	2.500	104:SLS2, ID:	0.001	1.875	0.001	1.875	0.001	1.875	> 10000
1142	343	2.500	104:SLS2, ID:	0.015	2.292	0.014	2.292	0.021	2.292	> 10000
1155	353	2.500	104:SLS2, ID:	-0.027	1.875	-0.023	2.083	0.028	1.875	> 10000
1156	345	2.500	104:SLS2, ID:	-0.000	1.042	-0.000	1.042	0.001	1.667	> 10000
1157	354	2.500	104:SLS2, ID:	-0.020	1.250	-0.018	1.042	0.025	1.250	> 10000
1158	347	2.500	104:SLS2, ID:	-0.017	2.292	-0.016	2.292	0.024	2.292	> 10000
1159	355	2.500	104:SLS2, ID:	0.020	0.833	0.030	1.042	0.032	1.042	> 10000
1160	348	2.500	104:SLS2, ID:	0.021	1.250	0.018	1.042	0.025	1.250	> 10000
1161	356	2.500	104:SLS2, ID:	-0.019	1.458	-0.022	1.250	0.025	1.250	> 10000
1162	349	2.500	104:SLS2, ID:	-0.036	1.667	-0.023	1.875	0.038	1.667	> 10000
1163	357	2.500	104:SLS2, ID:	0.018	0.833	0.029	1.042	0.031	1.042	> 10000

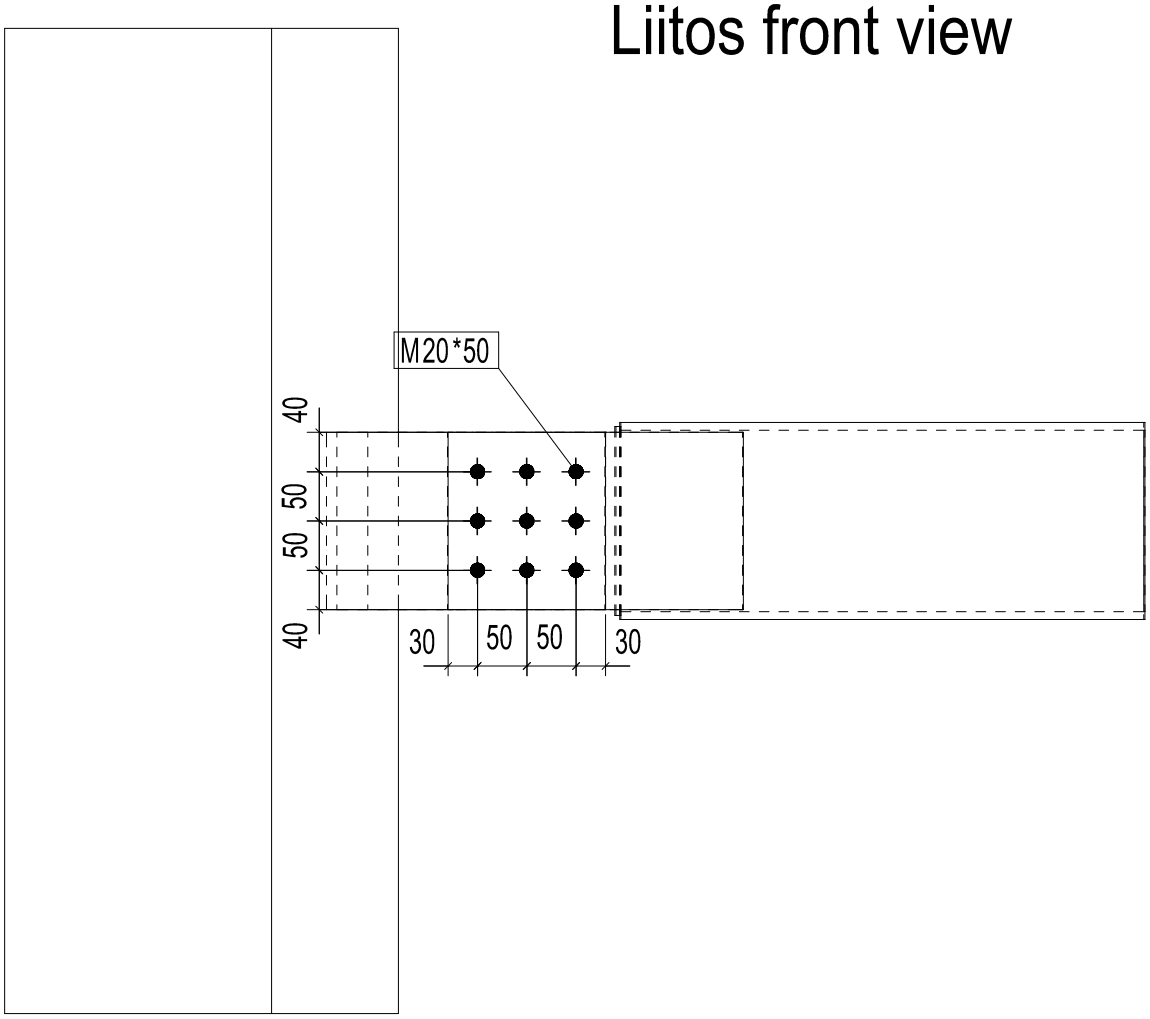
Beam Maximum Relative Displacements Cont...

Beam	Node A	Length (m)	L/C	y (mm)	d (m)	z (mm)	d (m)	Resultant (mm)	d (m)	Span Max z
1164	350	2.500	104:SLS2, ID:	0.021	1.250	0.018	1.042	0.025	1.250	> 10000
1165	358	2.500	104:SLS2, ID:	-0.019	1.458	-0.022	1.250	0.025	1.250	> 10000
1166	351	2.500	104:SLS2, ID:	-0.027	1.250	-0.027	1.458	0.029	1.250	> 10000
1167	359	2.500	104:SLS2, ID:	0.046	2.292	0.019	0.833	0.048	2.292	> 10000
1168	352	2.500	104:SLS2, ID:	0.018	1.458	0.021	1.250	0.025	1.250	> 10000
1169	360	2.500	104:SLS2, ID:	0.000	0.833	0.000	0.833	0.001	1.875	> 10000
1170	361	2.500	104:SLS2, ID:	0.019	1.250	0.022	1.042	0.026	1.250	> 10000
1183	371	2.500	104:SLS2, ID:	-0.013	1.250	0.021	1.250	0.025	1.250	> 10000
1184	363	2.500	104:SLS2, ID:	-0.000	1.250	-0.000	1.250	0.000	1.250	> 10000
1185	372	2.500	104:SLS2, ID:	-0.011	2.292	-0.005	2.292	0.012	2.292	> 10000
1186	365	2.500	104:SLS2, ID:	-0.034	2.292	0.039	2.292	0.052	2.292	> 10000
1187	373	2.500	104:SLS2, ID:	0.032	2.292	-0.035	2.292	0.048	2.292	> 10000
1188	366	2.500	104:SLS2, ID:	0.010	2.292	0.005	2.292	0.011	2.292	> 10000
1189	374	2.500	104:SLS2, ID:	-0.011	2.292	-0.005	2.292	0.012	2.292	> 10000
1190	367	2.500	104:SLS2, ID:	-0.013	2.292	-0.006	2.292	0.014	2.292	> 10000
1191	375	2.500	104:SLS2, ID:	0.013	2.292	0.006	2.292	0.014	2.292	> 10000
1192	368	2.500	104:SLS2, ID:	0.011	2.292	0.005	2.292	0.012	2.292	> 10000
1193	376	2.500	104:SLS2, ID:	-0.011	2.292	-0.005	2.292	0.012	2.292	> 10000
1194	369	2.500	104:SLS2, ID:	0.007	2.292	-0.047	2.292	0.048	2.292	> 10000
1195	377	2.500	104:SLS2, ID:	-0.011	1.458	0.051	2.292	0.052	2.292	> 10000
1196	370	2.500	104:SLS2, ID:	0.011	2.292	0.005	2.292	0.012	2.292	> 10000
1197	378	2.500	104:SLS2, ID:	0.000	1.458	0.000	1.458	0.001	1.875	> 10000

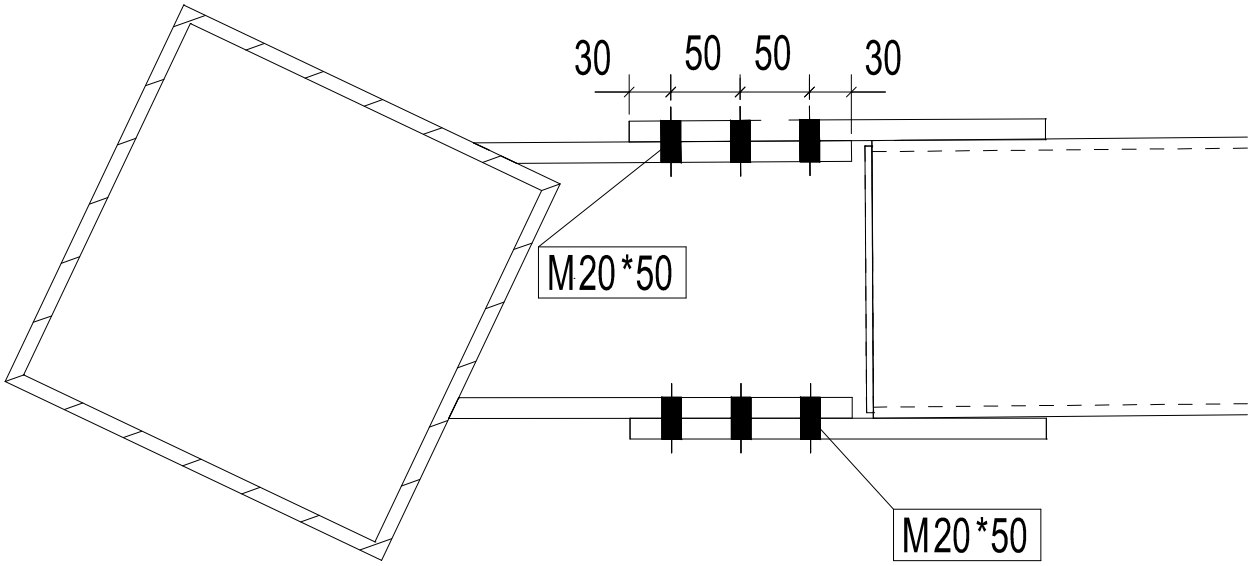
Liitos


CFRHS200X200X8 S355J2G3
PL20*180 S355J2G3
9*M20x50 / 8.8
9*M20x50 / 8.8
PL20*180 S355J2G3
CFRHS300X300X10 S355J2G3

Liitos front view



Liitos top view



Elenttien välisen liitoksen
mitoitus käsinlaskien

RHS200*200*8 putken vetokestävyys RHSkap, kN

$$RHSkap := \frac{\left(200 \cdot 4 \cdot 8 \cdot \frac{355}{1.1}\right)}{1000} \qquad RHSkap = 2.065 \cdot 10^3$$

teräsosien lujuus = f, MPa

$$f := \frac{355}{1.1}$$

hitsien lujuus = h, MPa

$$h := f \cdot 0.8 \qquad h = 258.182$$

liitoslevyn paksuus = m1, mm

$$m1 := 20$$

hitsien a mitta = a, mm

$$a := 8$$

liitoslevyn korkeus = m2, mm

$$m2 := 180$$

hitsin pituus = m3, mm

$$m3 := m1$$

pulttien leikkauslujuus = p, MPa

$$p := \frac{640}{2} \qquad p = 320$$

hitsin pituus = m4, mm

$$m4 := m2$$

pulttien halkaisija = d, mm

$$d := 20$$

hitsin pituus = m5, mm

$$m5 := 180$$

pulttien lukumäärä = n, kpl

$$n := 18$$

hitsin pituus = m6, mm

$$m6 := 100$$

Pulttien kestävyys = Pkap, kN

$$Pkap := \pi \cdot \frac{d^2}{4} \cdot p \cdot \frac{n}{1000}$$

$$Pkap = 1.81 \cdot 10^3$$

$$\frac{Pkap}{RHSkap} = 0.876$$

Levyosien kestävyys = Lkap, kN

$$Lkap := \frac{m1 \cdot (m2 - 3 \cdot d) \cdot f \cdot 2}{1000}$$

$$Lkap = 1.549 \cdot 10^3$$

$$\frac{Lkap}{RHSkap} = 0.75$$

Pilarin hitsien kestävyys = H1kap, kN

$$H1kap := \frac{(m3 + m4) \cdot 2 \cdot a \cdot h \cdot 2}{1000}$$

$$H1kap = 1.652 \cdot 10^3$$

$$\frac{H1kap}{RHSkap} = 0.8$$

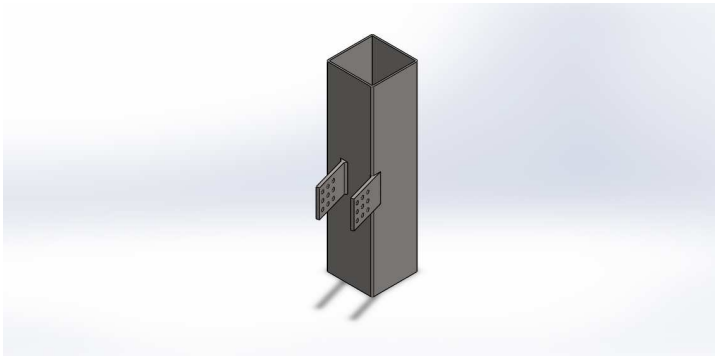
Palkin hitsien kestävyys = H2kap, kN

$$H2kap := \frac{\left(2 \cdot m5 \cdot a \cdot h + 2 \cdot m6 \cdot a \cdot \frac{h}{2}\right) \cdot 2}{1000}$$

$$H2kap = 1.9 \cdot 10^3$$

$$\frac{H2kap}{RHSkap} = 0.92$$

LIITOS OK, liitos kestää 75% palkin vetokestävyydestä.



Simulation of Part1

Date: 10. helmikuutata 2015
Designer: Solidworks
Study name: Static 1
Analysis type: Static

Table of Contents

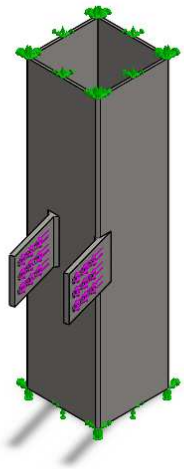
Description

PILARI RHS300x300x10

18 KPL M20 8.8 PULTTIA

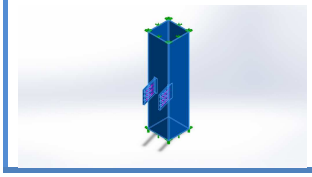
Assumptions

Model Information



Model name: Part1
Current Configuration: Default

Solid Bodies

Document Name and Reference	Treated As	Volumetric Properties	Document Path/Date Modified
Cut-Extrude1 	Solid Body	**Mass:118.663 kg** **Volume:0.0150207 m^3** **Density:7900 kg/m^3** **Weight:1162.9 N**	**C:\Users\Teemu\Documents\SolidWorks Projektit\det1\DET2\Part1.SLDPRT** Feb 10 14:16:19 2015

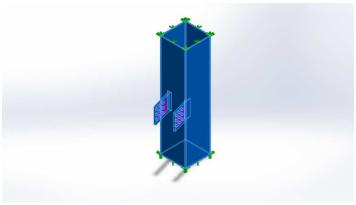
Study Properties

Study name	Static 1
Analysis type	Static
Mesh type	Solid Mesh
Thermal Effect:	On
Thermal option	Include temperature loads
Zero strain temperature	298 Kelvin
Include fluid pressure effects from SolidWorks Flow Simulation	Off
Solver type	FFEPlus
Inplane Effect:	Off
Soft Spring:	Off
Inertial Relief:	Off
Incompatible bonding options	Automatic
Large displacement	Off
Compute free body forces	On
Friction	Off
Use Adaptive Method:	Off
Result folder	SolidWorks document (C:\Users\Teemu\Documents\SolidWorks Projektit\det1\DET2)

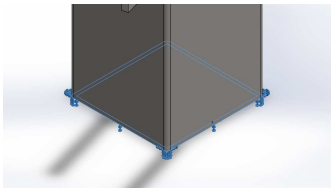
Units

Unit system:	SI (MKS)
Length/Displacement	mm
Temperature	Kelvin
Angular velocity	Rad/sec
Pressure/Stress	N/m^2

Material Properties

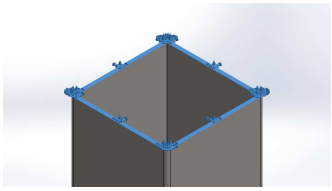
Model Reference	Properties		Components
	**Name:**	AISI 1020	SolidBody 1(Cut-Extrude1)(Part3)
	Model type:	Linear Elastic Isotropic	
	Default failure criterion:	Max von Mises Stress	
	Yield strength:	3.51571e+008 N/m^2	
	Tensile strength:	4.20507e+008 N/m^2	
	Elastic modulus:	2e+011 N/m^2	
	Poisson's ratio:	0.29	
	Mass density:	7900 kg/m^3	
	Shear modulus:	7.7e+010 N/m^2	
	Thermal expansion coefficient:	1.5e-005 /Kelvin	
Curve Data:N/A			

Loads and Fixtures

Fixture name	Fixture Image	Fixture Details
Fixed-1		**Entities:** 1 face(s) **Type:** Fixed Geometry

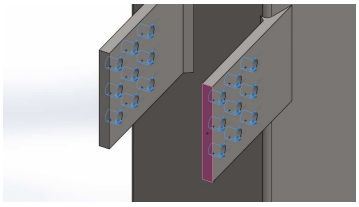
Resultant Forces

Components	X	Y	Z	Resultant
Reaction force(N)	-306628	-175550	-1.09293e+006	1.14862e+006
Reaction Moment(N.m)	0	0	0	0

Fixture name	Fixture Image	Fixture Details
Fixed-2		**Entities:** 1 face(s) **Type:** Fixed Geometry

Resultant Forces

Components	X	Y	Z	Resultant
Reaction force(N)	-307850	175414	-1.09225e+006	1.14828e+006
Reaction Moment(N.m)	0	0	0	0

Load name	Load Image	Load Details
Force-2		**Entities:** 18 face(s) **Reference:** Face< 1 > **Type:** Apply force **Values:** ---, ---, -2.27e+006 N

Connector Definitions

No Data

Contact Information

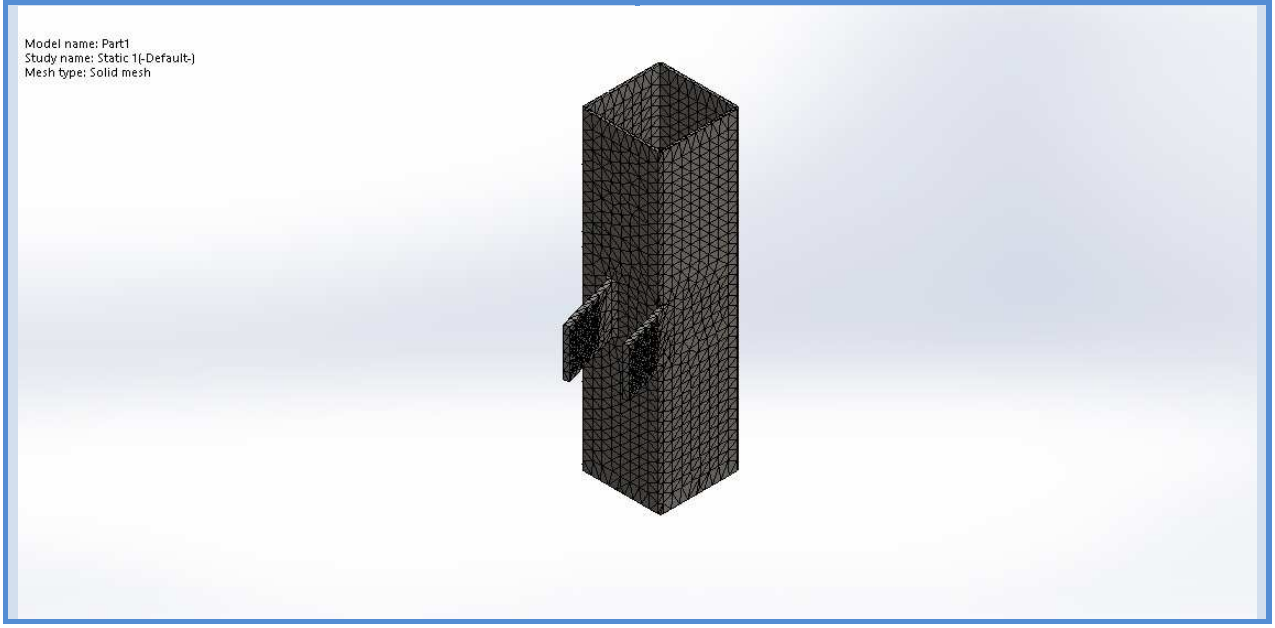
No Data

Mesh Information

Mesh type	Solid Mesh
Mesher Used:	Standard mesh
Automatic Transition:	Off
Include Mesh Auto Loops:	Off
Jacobian points	4 Points
Element Size	34.2126 mm
Tolerance	1.71063 mm
Mesh Quality	High

Mesh Information - Details

Total Nodes	20405
Total Elements	10399
Maximum Aspect Ratio	14.332
% of elements with Aspect Ratio < 3	27.8
% of elements with Aspect Ratio > 10	0.404
% of distorted elements(Jacobian)	0
Time to complete mesh(hh;mm;ss):	00:00:03
Computer name:	IDEAPCTEEMUMS



Sensor Details

No Data

Resultant Forces

Reaction Forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	-614478	-135.375	-2.18518e+006	2.26993e+006

Reaction Moments

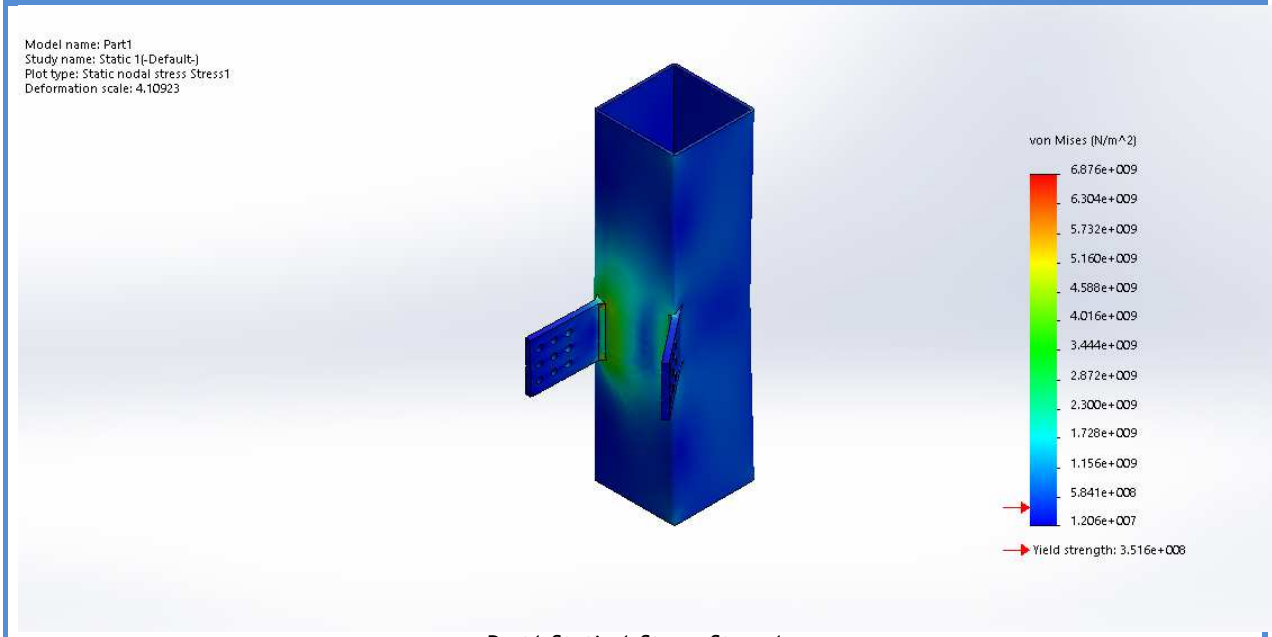
Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	0	0	0	0

Beams

No Data

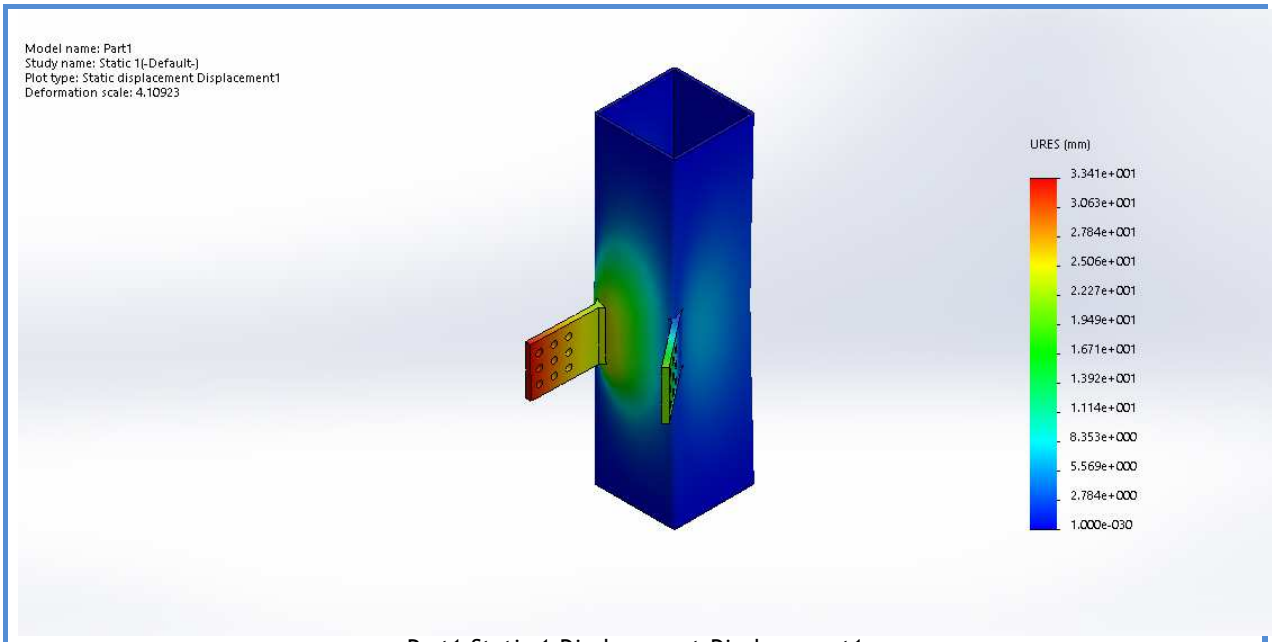
Study Results

Name	Type	Min	Max
Stress1	VON: von Mises Stress	1.20586e+007 N/m^2 Node: 12477	6.87598e+009 N/m^2 Node: 18032



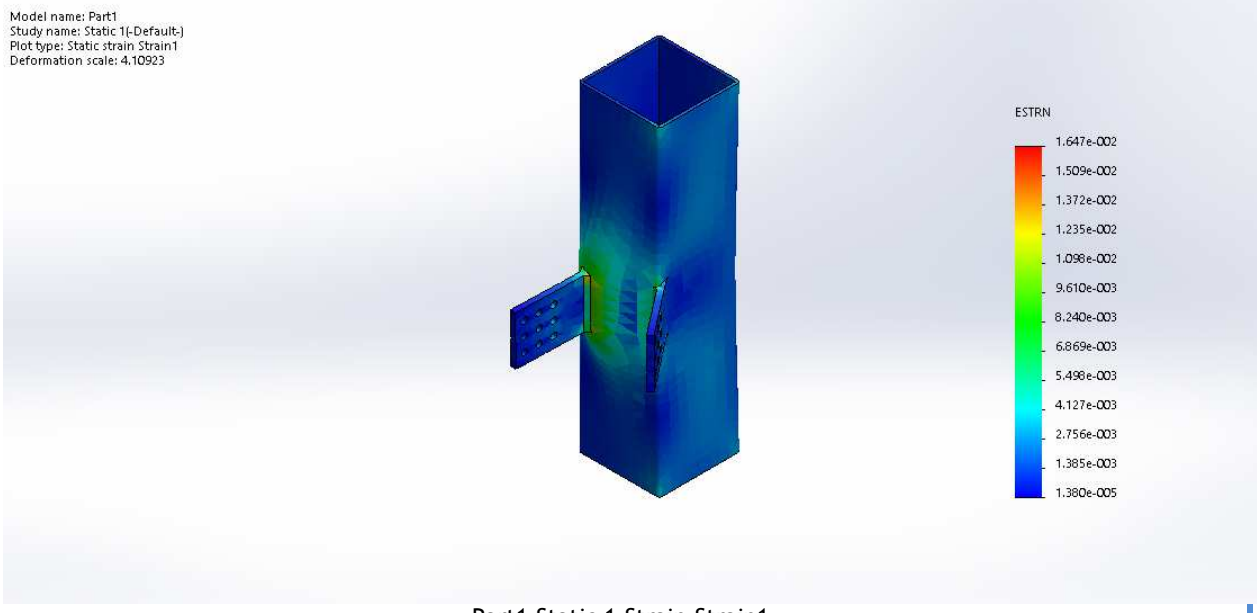
Part1-Static 1-Stress-Stress1

Name	Type	Min	Max
Displacement1	URES: Resultant Displacement	0 mm Node: 217	33.4123 mm Node: 2679



Part1-Static 1-Displacement-Displacement1

Name	Type	Min	Max
Strain1	ESTRN: Equivalent Strain	1.37964e-005 Element: 6571	0.0164653 Element: 9625



Part1-Static 1-Strain-Strain1

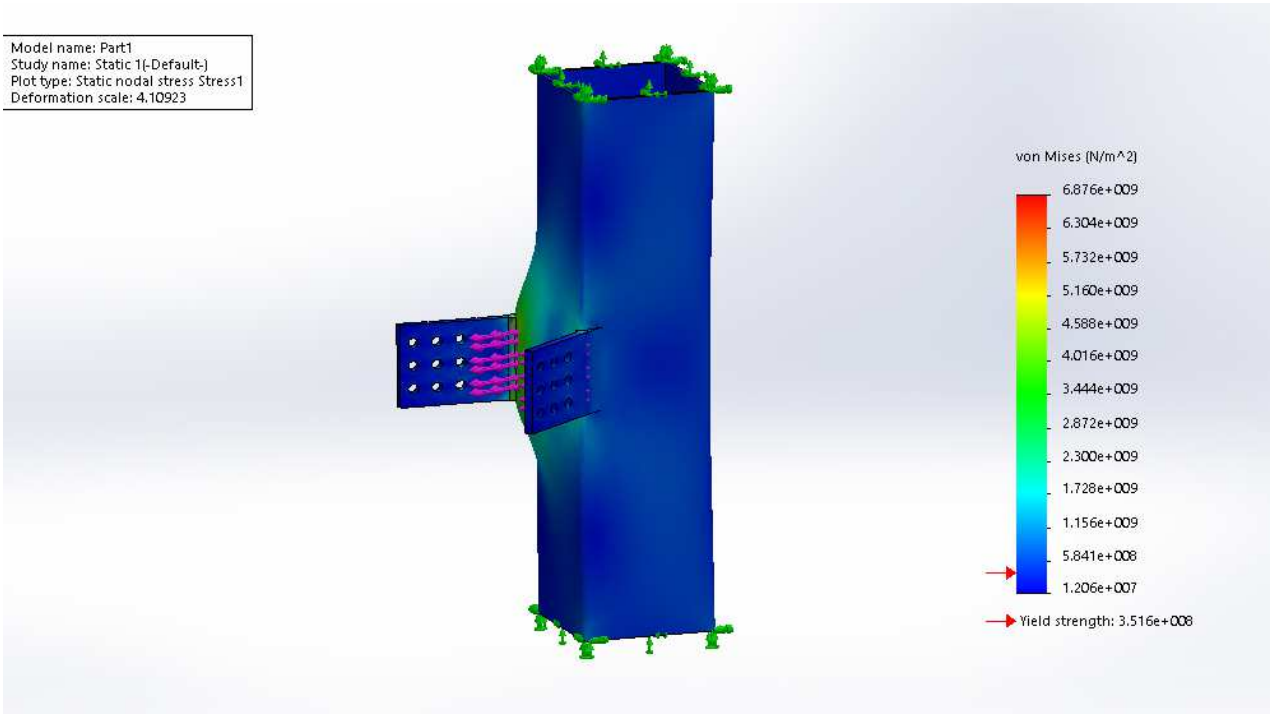


Image-1

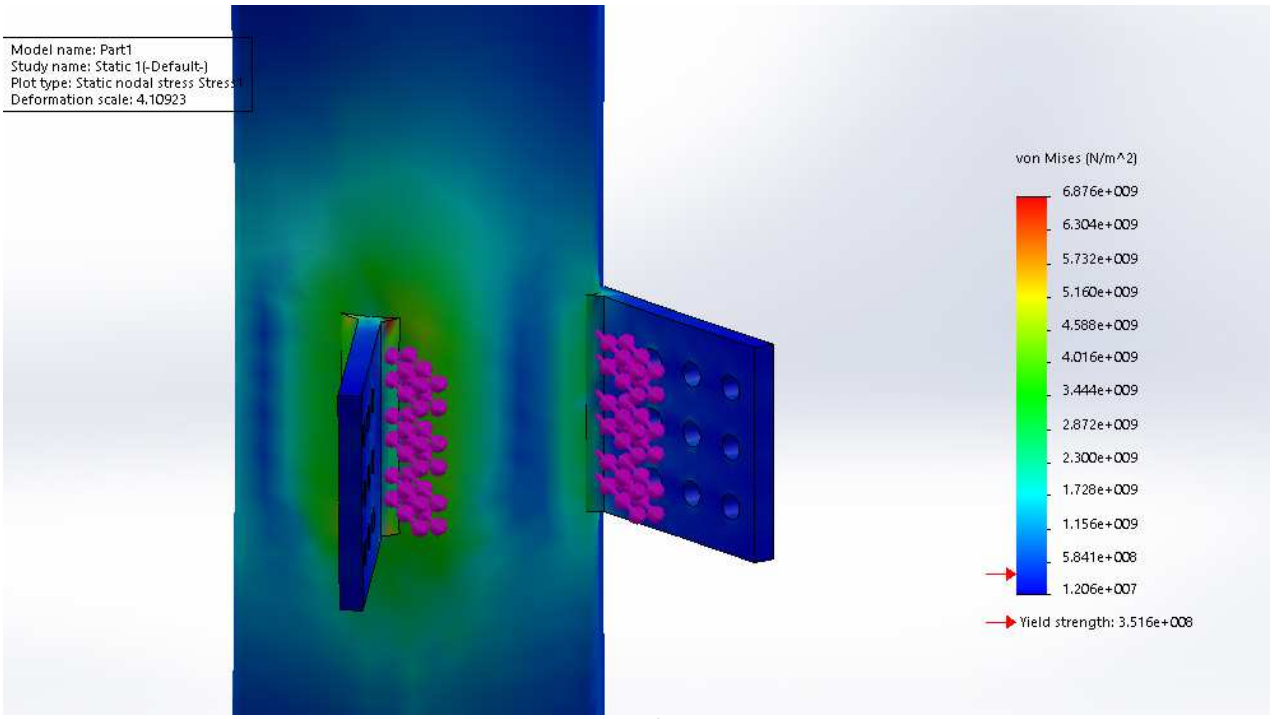


Image-2

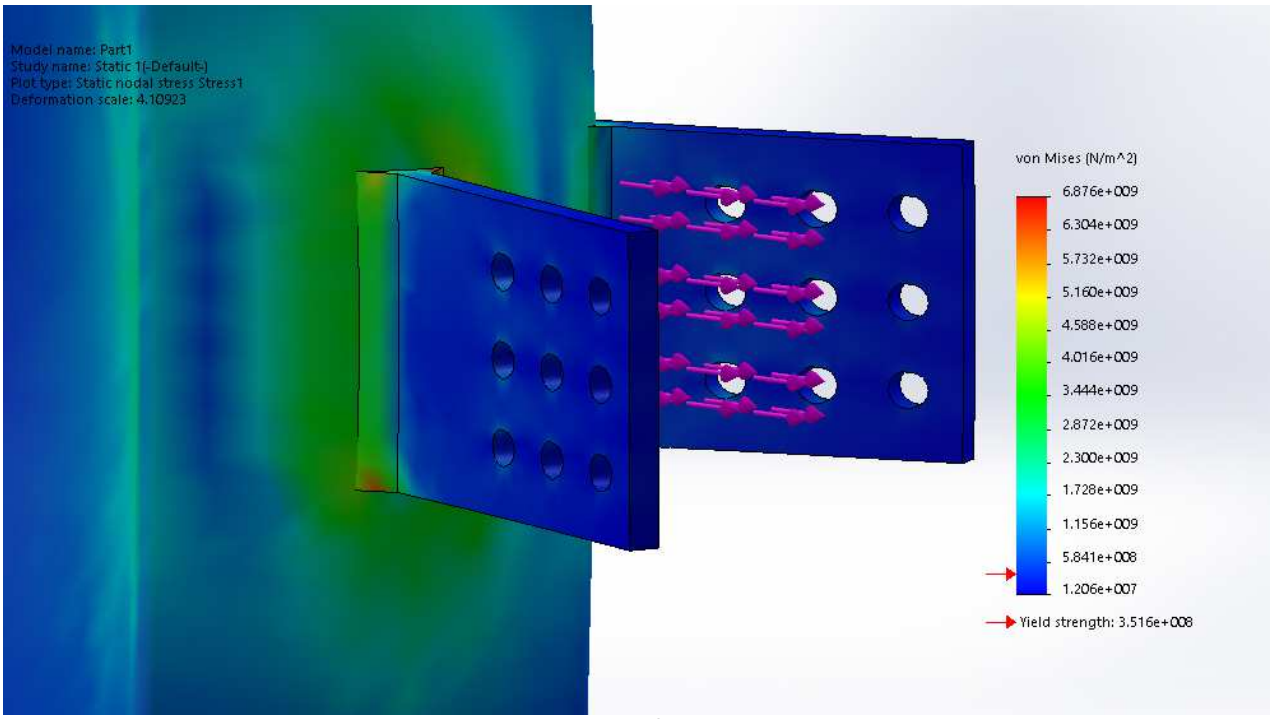
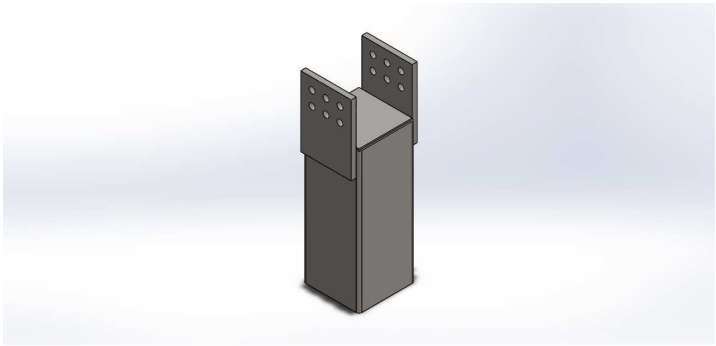


Image-3

Conclusion



Simulation of Assem3

Date: 10. helmikuutata 2015
Designer: Solidworks
Study name: Static 1
Analysis type: Static

Table of Contents

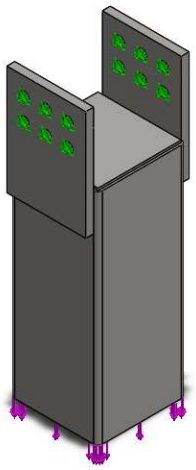
Description

PALKKI RHS200x200x8

12 KPL M20 8.8 PULTTIA

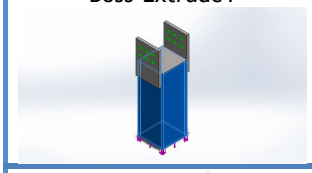
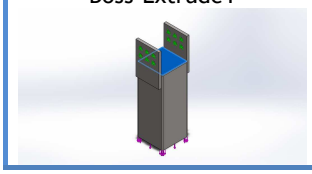
Assumptions

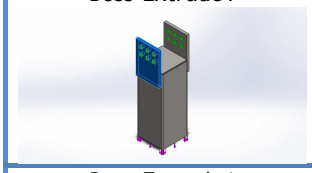
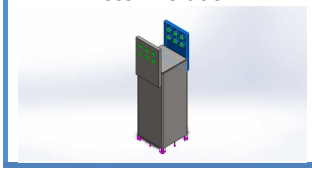
Model Information



Model name: Assem3
Current Configuration: Default

Solid Bodies

Document Name and Reference	Treated As	Volumetric Properties	Document Path/Date Modified
Boss-Extrude1 	Solid Body	**Mass:30.02 kg** **Volume:0.0038 m^3** **Density:7900 kg/m^3** **Weight:294.196 N**	**C:\Users\Teemu\Documents\SolidWorks Projektit\det1\Part4.SLDPRT** Jan 11 20:54:39 2015
Boss-Extrude1 	Solid Body	**Mass:1.42595 kg** **Volume:0.0001805 m^3** **Density:7900 kg/m^3** **Weight:13.9743 N**	**C:\Users\Teemu\Documents\SolidWorks Projektit\det1\Part6.SLDPRT** Feb 10 10:58:54 2015

Boss-Extrude1 	Solid Body	**Mass:6.09999 kg** **Volume:0.000772151 m^3** **Density:7900 kg/m^3** **Weight:59.7799 N**	**C:\Users\Teemu\Documents\SolidWorks Projektit\det1\Part7.SLDPRT** Feb 10 11:10:35 2015
Boss-Extrude1 	Solid Body	**Mass:6.09999 kg** **Volume:0.000772151 m^3** **Density:7900 kg/m^3** **Weight:59.7799 N**	**C:\Users\Teemu\Documents\SolidWorks Projektit\det1\Part7.SLDPRT** Feb 10 11:10:35 2015

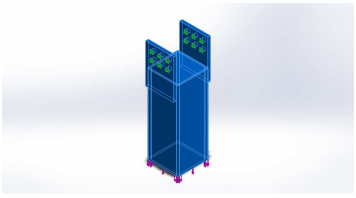
Study Properties

Study name	Static 1
Analysis type	Static
Mesh type	Solid Mesh
Thermal Effect:	On
Thermal option	Include temperature loads
Zero strain temperature	298 Kelvin
Include fluid pressure effects from SolidWorks Flow Simulation	Off
Solver type	FFEPlus
Inplane Effect:	Off
Soft Spring:	Off
Inertial Relief:	Off
Incompatible bonding options	Automatic
Large displacement	Off
Compute free body forces	On
Friction	Off
Use Adaptive Method:	Off
Result folder	SolidWorks document (C:\Users\Teemu\Documents\SolidWorks Projektit\det1)

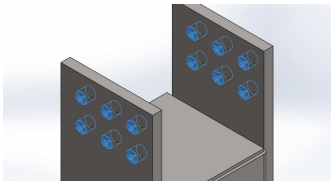
Units

Unit system:	SI (MKS)
Length/Displacement	mm
Temperature	Kelvin
Angular velocity	Rad/sec
Pressure/Stress	N/m^2

Material Properties

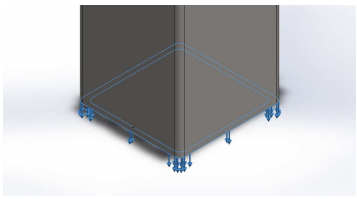
Model Reference	Properties		Components
	**Name:**	AISI 1020	SolidBody 1(Boss-Extrude1)(Part4-1), SolidBody 1(Boss-Extrude1)(Part6-1), SolidBody 1(Boss-Extrude1)(Part7-1), SolidBody 1(Boss-Extrude1)(Part7-2)
	Model type:	Linear Elastic Isotropic	
	Default failure criterion:	Max von Mises Stress	
	Yield strength:	3.51571e+008 N/m^2	
	Tensile strength:	4.20507e+008 N/m^2	
	Elastic modulus:	2e+011 N/m^2	
	Poisson's ratio:	0.29	
	Mass density:	7900 kg/m^3	
	Shear modulus:	7.7e+010 N/m^2	
	Thermal expansion coefficient:	1.5e-005 /Kelvin	
Curve Data:N/A			

Loads and Fixtures

Fixture name	Fixture Image	Fixture Details
Fixed-1		**Entities:** 12 face(s) **Type:** Fixed Geometry

Resultant Forces

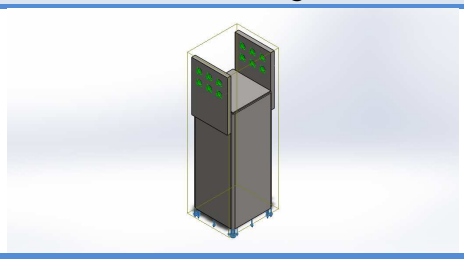
Components	X	Y	Z	Resultant
Reaction force(N)	22.7084	2.27011e+006	-4.3584	2.27011e+006
Reaction Moment(N.m)	0	0	0	0

Load name	Load Image	Load Details
Force-1		**Entities:** 1 face(s) **Type:** Apply normal force **Value:** -2.272e+006 N

Connector Definitions

No Data

Contact Information

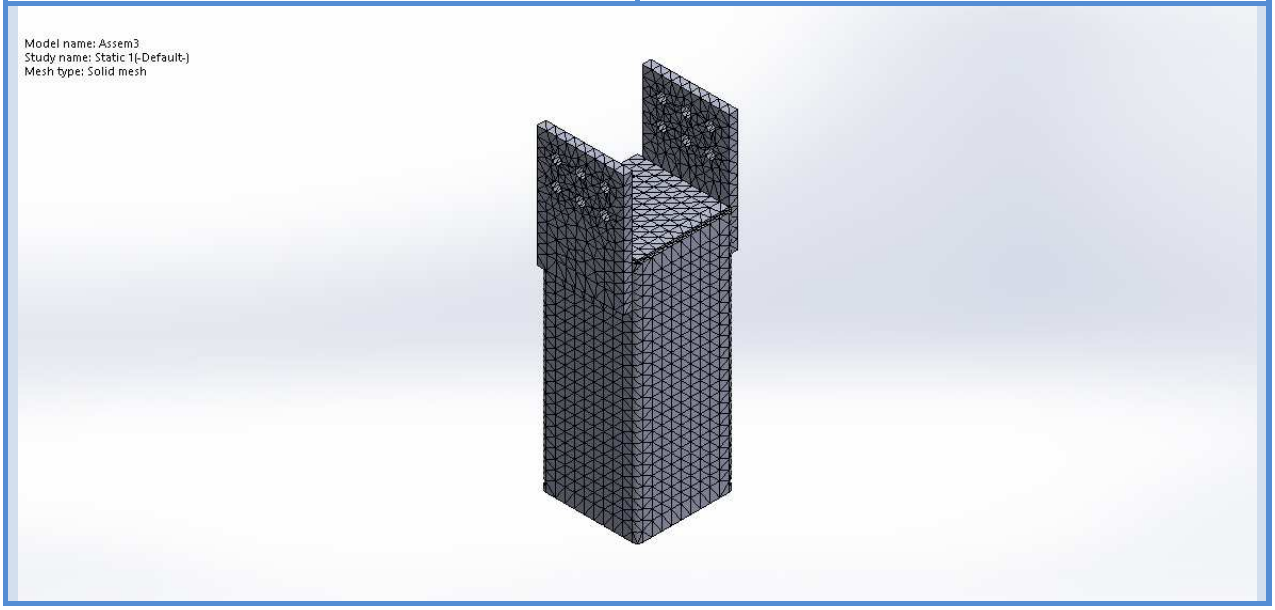
Contact	Contact Image	Contact Properties
Global Contact		**Type:** Bonded **Components:** 1 component(s) **Options:** Compatible mesh

Mesh Information

Mesh type	Solid Mesh
Mesher Used:	Standard mesh
Automatic Transition:	Off
Include Mesh Auto Loops:	Off
Jacobian points	4 Points
Element Size	20.5028 mm
Tolerance	1.02514 mm
Mesh Quality	High
Remesh failed parts with incompatible mesh	Off

Mesh Information - Details

Total Nodes	17818
Total Elements	9079
Maximum Aspect Ratio	9.7015
% of elements with Aspect Ratio < 3	85.7
% of elements with Aspect Ratio > 10	0
% of distorted elements(Jacobian)	0
Time to complete mesh(hh;mm;ss):	00:00:03
Computer name:	IDEAPCTEEMUMS



Sensor Details

No Data

Resultant Forces

Reaction Forces

Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N	22.7084	2.27011e+006	-4.3584	2.27011e+006

Reaction Moments

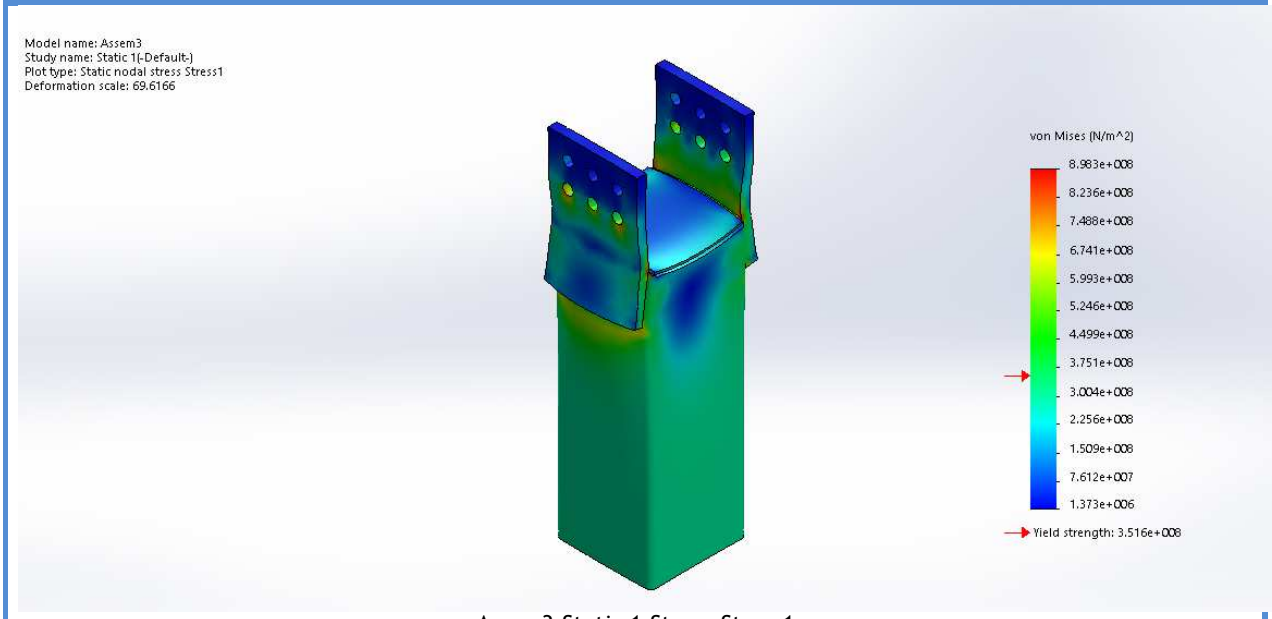
Selection set	Units	Sum X	Sum Y	Sum Z	Resultant
Entire Model	N.m	0	0	0	0

Beams

No Data

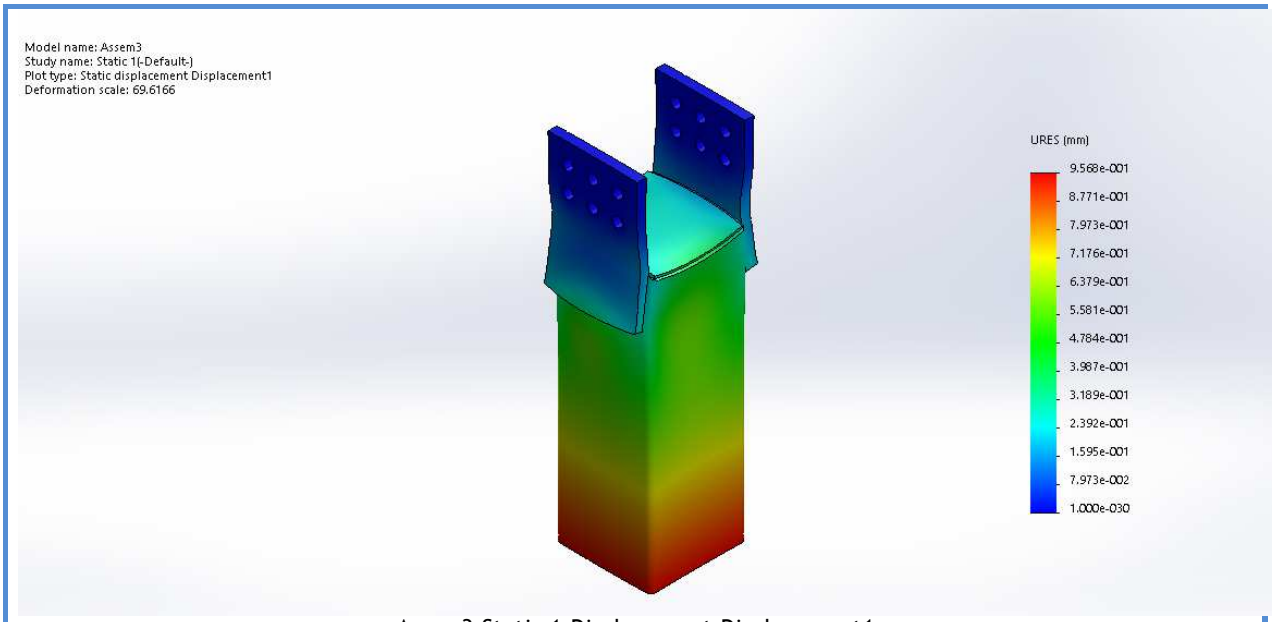
Study Results

Name	Type	Min	Max
Stress1	VON: von Mises Stress	1.37284e+006 N/m^2 Node: 15113	8.98328e+008 N/m^2 Node: 17582



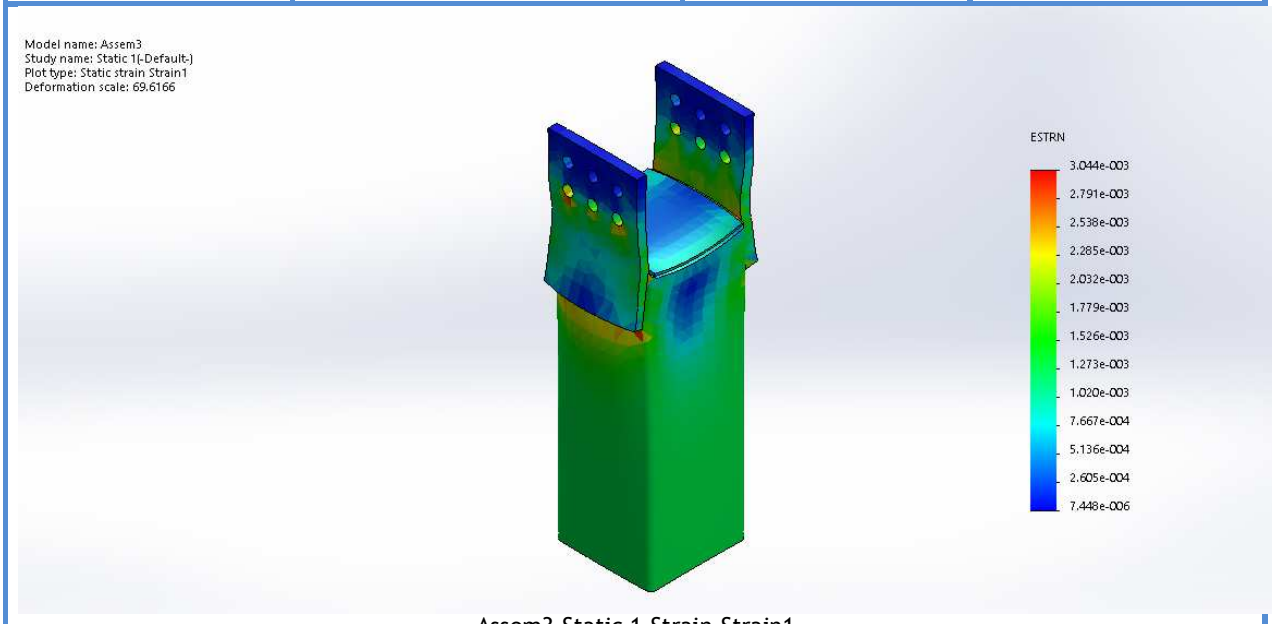
Assem3-Static 1-Stress-Stress1

Name	Type	Min	Max
Displacement1	URES: Resultant Displacement	0 mm Node: 13029	0.956784 mm Node: 549



Assem3-Static 1-Displacement-Displacement1

Name	Type	Min	Max
Strain1	ESTRN: Equivalent Strain	7.44756e-006 Element: 6704	0.00304433 Element: 8511



Assem3-Static 1-Strain-Strain1

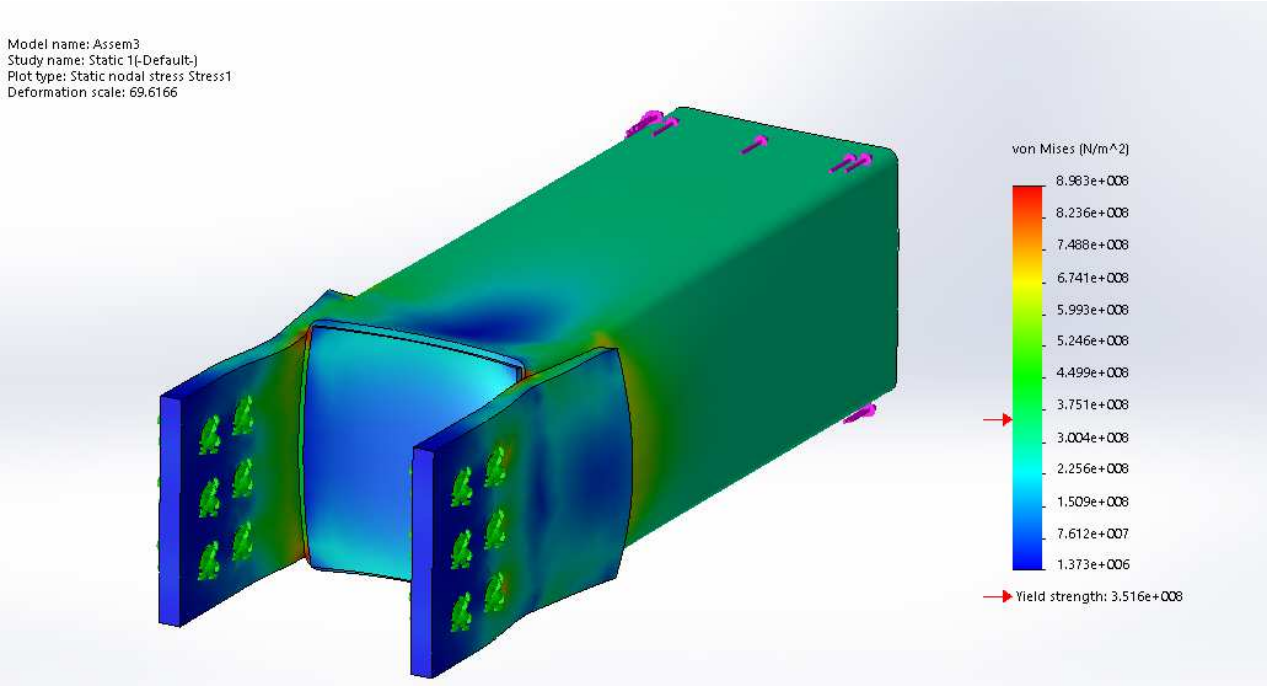


Image-1

Conclusion